SMALL PROBLEMS FOR INFANTRY

BJORNSTAD

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Sgt L. Farmer

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Preface

THIS work was undertaken in view of the many applications received by The Army Service Schools for information as to literature which would assist in the instruction and training of noncommissioned officers. Its purpose is to place before infantry officers and noncommissioned officers a series of problems which may be studied to advantage. The principal value of the book, however, is believed to lie in *the method* which it teaches. There are hundreds of single sentences in Infantry Drill Regulations, 1911, each of which can be made the basis for an instructive problem for indoor or outdoor work. It is hoped that the examples contained in this book will assist industrious company officers in preparing problems for platoons, squads, patrols, outguards, etc., using the applicatory method which is so largely responsible for whatever success The Army Service Schools have achieved in teaching tactics.

To Captain A. W. Bjornstad, 16th Infantry, was assigned the task of writing the proposed work. The Infantry and Engineer Corps members of the Class of 1916, Army Staff College, devoted five days to the development of certain problems outlined to them. With this valuable assistance, the work has been completed during such odd times as could be spared from the normal duties of an instructor.

It is in accordance with the practice of these Schools to view many of the solutions herein as no better than other possible solutions. The essential thing is to train officers and noncommissioned officers to adopt promptly *some measure* which is practical, effective, and consistent with the team-work which Infantry Drill Regulations seek to establish. To quote paragraph 372 of those Regulations, "In a given situation it is far better to *do any intelligent thing* consistent with the aggressive execution of the general plan, than to seach hesitatingly for the ideal. This is the true rule of conduct for subordinates who are required to act upon their own initiative."

The author is indebted to Captain L. M. Nuttman, 4th Inf., Captain J. B. Gowen, 10th Inf., and Lieutenant Aristides Moreno, Infantry, for valuable assistance in correcting and proof-reading the manuscript.

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The original plan for this book contemplated 14 problems, or, more accurately speaking, 14 series of situations, dealing with advance guards, outposts, and patrols, and 6 problems, or series of situations, in attack and defense, illustrating the leading of a platoon as part of a large force of all arms. The 6 problems in attack and defense were not ready for the printer when War Department orders were received closing The Army Service Schools within 24 hours and returning officers to their regiments. It was decided to publish the completed problems and to add a chapter on combat instruction, to include as many examples of exercises as could be prepared in the short time remaining available.

A. W. B.

May 13, 1916.

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Introduction

To Company Commanders

THE noncommissioned officer of infantry is called upon to perform a greater *variety* of duties than the noncommissioned officer of any other arm or special service, except, probably, cavalry. He deals with elements which at first glance seem quite simple—men and rifles—marching and shooting. But when the varied employment of these elements in war is fully comprehended and analyzed, we find human and mechanical vagaries and uncertainties which defeat the leadership of a novice, or even of a practiced noncommissioned officer whose development of mind and soul has been so deficient as to leave him without courage, force, and initiative.

The possession of force and initiative inspires self-confidence. Courage is two parts self-confidence and one part bravery. The noncommissioned officer, or prospective noncommissioned officer, who, after a fair trial, displays no progress in the development of force and initiative, should be dropped before he becomes a fixture in the company. It is not in every man to become even a fair noncommissioned officer, and, considering the heavy demands on courage and discipline, the infantry can least afford to tolerate a noncommissioned officer who is only fair.

Our difficulty seems to lie in the failure to appreciate the conditions under which the noncommissioned officer must work in war. An indifferent sailor can sail a ship in fair weather and off shore. His ship will *seem* as trim and sightly as any other—if we do not inspect it too closely. But the sailor who is to weather a storm, like the infantry sergeant or corporal who faces an enemy, must have a reserve of courage, driving-power, and skill. In time of peace we can hardly simulate conditions which make a demand on this reserve, but we must build it up, nevertheless. It is the distinguishing mark of well-trained troops. The lack of it accounts for the low value of organizations of reasonably

brave men, the officers and noncommissioned officers of which carry only the outward marks of leadership.

If Sergeant What's-his-name barks, "Squads right, march," and "Club rifle, swing," at a flock of recruits for five years, and does it well, he will acquire a certain confidence and bearing, it is true. This is valuable, but he needs more. The thousand and one situations that may confront him in war should be presented to him in various guises under conditions which compel him to *decide,* to *act,* to *indicate his will,* and to *enforce his will.* He is trained and dependable man when he is, and knows he is, fitted to meet, squarely and vigorously and understandingly, any likely combination of circumstances. His men must have a justifiable confidence in him, and he must have a justifiable confidence in himself. This can result only when he possesses the essential military virtues of a noncommissioned officer—courage, force, and initiative.

Quite recently I expressed some views on the training of platoon leaders and guides (Military Historian and Economist, April, 1916). It seems appropriate to quote the following:

"The platoon is the largest unit susceptible of direct personal control of individuals in the firing line by a leader. It is our present purpose to point out two of the most important functions of the platoon in modern battle, and the change from old conditions.

"In the days of short-range weapons a company was under the direct, personal control of the captain. It never exceeded 100 men in our service, and was generally smaller. It fought in close order and responded quite easily to the vocal commands of the captain. Improved small arms and artillery long ago made this conception of company leading obsolete. With the necessity for deploying skirmishers and the utilization of all available cover, the grip of the captain was lost. After a period of years, during which no satisfactory substitute for the former control of the captain was devised, the Infantry Drill Regulations, 1911, appeared with a practical solution. Direct, personal control is now passed to the platoon leaders the moment the company is deployed. Henceforth, the captain exerts his will through his four platoon leaders, dispensing with much of the detail which was formerly his concern. The company has become a small battalion. The platoon, formerly an unimportant subdivi-

sion for maneuver, has risen to the dignity of an important fighting unit. The sergeant of infantry has become a leader with a grave responsibility thrust upon him, as we shall show later.

"The final test of infantry is its ability to attack. Attack by infantry is a combination of fire and movement while under fire of the enemy. To fire effectively, and thus reduce loss from the enemy's fire, and to move resolutely forward at every opportunity, are the simple elements of infantry attack. A few tubes of paint, a brush, and a piece of canvas are the simple elements of a Rembrandt painting.

"The platoon organization and the allotment of leaders are designed primarily with a view to the maximum efficiency in these elements of infantry attack—fire and movement.

"Ordinarily, the infantry firing line has for its target a thin and indistinct horizontal line. Parts of the line may be invisible or indistinguishable. All parts, however, must be covered with fire, else the *sine qua non* condition to forward movement, the reduction of hostile fire effect, may be absent. Each man is taught to fire constantly on one point in the thin, horizontal target, or line, that point being the one which, with respect to the section of target previously allotted and announced to his platoon, corresponds to his own position in platoon. Since no two shots fired by him with the same point of aim are likely to strike the same spot, the trajectories of his shots will in time describe a curved cone. The dimensions of the base of the cone will increase as the dispersion (wild firing) increases. If we now imagine the figures described by the cones of many men placed side by side, we see a wide, thin sheaf of fire, the thickness of which increases as the dispersion increases. It is as if many men played streams of water on the target, the nozzles being held parallel to each other. In battle, the bases of the cones merge into one another. Symmetry is lost. Individual fire is lost in the sheaf. Only the fire effect of the sheaf can be observed, if indeed that much can be observed. Fire control is the effort to make the sheaf effective; that is, to carry it into the target and to increase its density by regulating the volume and decreasing the dispersion. It is impracticable to control the sheaf of a long firing line as one unit. The platoon is the subdivision for fire control, the fire unit, and the sheaves of the platoons are regarded and controlled separately.

"Movement, the second element to enter into infantry attack, must ordinarily be effected by small groups making short rushes. To be under fire possibly for hours and then

to rise from a position of real or fancied security and rush forward 50 or 100 yards under a hail of bullets and shrapnel demands an effort that all men are not equal to. In former times infantry fought standing up, partly because it was in close order, and partly because the old muzzle-loading musket could not otherwise be loaded conveniently. It was more difficult for skulkers to escape observation. Today each man while firing is, or should be, screened from the enemy's view, and this makes both his location and condition more difficult to observe. Furthermore, it is more difficult to advise him of an intended rush, and many men who, if duly warned, would willingly join the rush, find themselves mentally and physically inert when they finally realize that their neighbors have dashed forward. A battlefield is strewn with men whose only ailment is inertia, induced by causes too numerous to mention. It is folly to fly in the face of history and deny that American troops do such things. Raw troops are hopeless in attack, more so under modern conditions than ever before. The temper of partially trained troops is very uneven. Trained troops will have skulkers enough.

"The number of men to engage in a single rush is, of course, variable, and depends upon the conditions of the fire fight. The ideal unit for the rush is the platoon. We may be able to use a larger fraction, but we shall frequently be obliged to use a smaller. In any event, the preparations, the warning, and the execution are in the hands of the platoon leader and his assistant, the platoon guide. The details are slurred too much in peace time exercises by those who fail to comprehend the difficulties peculiar to a battlefield. In itself the movement looks simple enough, but it requires infinite care, close observation, good leading, and rough discipline. The final signal must not be given until firing has ceased and observation has disclosed that every man is "set" and is, therefore, warned and ready. The leader leads the way to a suitable fire position and halts, but behind the platoon is the sergeant who drives—the platoon guide. He is the man with the club—the policeman.

"This dual leadership of the platoon is peculiar to our service, and new. Its usefulness in the forward movement has just now been explained. In fire control it is likewise useful. Fire control may be described as a two-man job. The leader's duties in other directions are too numerous and exacting to permit of necessary attention to the conduct of the individual men of the platoon. The duties of platoon disciplinarian fall to the platoon guide. It would not remedy matters to divide the platoon and give each sergeant a half. There would still be a two-man job.

"A third reason for this novel organization lies in the fact that losses occur under peculiar conditions. In battle, leaders and men spend most of their time concealed, or partially concealed, from the enemy, and, therefore, to a more or less extent, from each other. But concealment of this kind does not render them immune from bullets. It often happens that a man lying some paces from his neighbor is out of action, without the fact being known. If such a fate befall a few platoon leaders, the result could easily be inertia and loss of control, the disintegrating factors of infantry combat. We have, however, a second in command who lies close to the leader. It is not likely that both will be put out of action in the same instant. If one is killed or severely wounded, the survivor calls a corporal to his side and the pair is restored.

"The obstacles to good platoon leadership are innumerable; poor training, excitement, sluggishness, and what not. * * * In view of the unavoidable scarcity of officers, due to absence on other duty and losses, and in view of the heavy losses of infantry in action, it may be asserted confidently that no company is well fitted for battle unless it has at the outset twelve men trained to the point which justifies us in calling them good platoon leaders. Furthermore, students of Civil War methods and tactics, who are at the same time familiar with the requirements of modern war and training, will agree that a sergeant of infantry, as our infantry is organized, must possess training and a quality of leadership in action fairly comparable to that demanded of a captain in the Civil War."

Each of the twelve senior noncommissioned officers should be able to handle a platoon; the corporals at least fairly well. When squad organization is possible, as is generally the case in the Regular Army, and also in the Militia when in camp, it is well to designate a permanent second and third in command of the squad and give these men ample opportunity to lead the squad. A company of 65 men would thus in time have at least 12 additional and fairly well trained squad leaders, and they will be needed to meet expansion and losses.

Instruction on the map is at best a poor substitute for well planned field exercises where persons and things are real. The problems in this book may serve best as a guide to the preparation of field exercises or tactical walks. There

is scarcely any incident so trivial that it does not teach a lesson.

Any one who uses this book for self-instruction should pause when he reaches such a question as, "What do you do?" or "What do you think?"—then re-read the situation until he understands it, and finally frame in his own mind, if not on paper, the answer to the question put. Then, and not until then, he should read the solution and discussion which follow.

A beginner would do well to study the appropriate paragraphs of the Infantry Drill Regulations (I. D. R.) and Field Service Regulations (F. S. R.) before deciding upon his answer.

Company commanders who desire to use problems of this character for instruction on the map or on the ground can, with patience and practice, prepare their own problems quite readily. The essential thing is to dispose of one point at a time, and dispose of it thoroughly. A thorough understanding of I. D. R. will be the reward of the officer who studies its paragraphs systematically in search of ideas for problems for his noncommissioned officers.

Battalion and regimental commanders who believe such problems are useful might require each of their officers to prepare one each month. The best of these problems could be furnished to the companies, and a file kept for future use. This applies to problems on the ground, as well as on the map. Many an excellent problem, worked out near a military post or camp, has been lost to contemporary and future company commanders because of the lack of system and coöperation. In time of peace the military service is a school. A file of old problems (if they are good ones) is as new and useful to a new batch of noncommissioned officers as a standard work on algebra is to successive classes of schoolboys.

It is necessary to explain that it has been impracticable for the author to visit the Hunterstown region. The problems in this book are based upon the map which accompanies the book (Hunterstown sheet, R. F. $\frac{1}{21120}$, of the Gettysburg-

Antietam Map, Army Service Schools), and not upon the ground itself. An inspection of the ground would probably suggest the wisdom of some minor changes.

A. W. B.

THE FIRST PLATOON, COMPANY A

For convenience, an imaginary platoon has been organized and appears below in column of squads. The various situations are faced by this platoon, or members of it. The numbers indicate second and third in command of squads, under the system recommended on page. 5.

	Hill (sgt.)		MARCH DIRECTION		
	Clark (corp.)	Brown (2)	Hagen	Pine (3)	1st Lt. Allen
1st Squad	Ames	Schafer	McGowan	Stone	In some problems the platoon leader is 1st Sgt. Holmes or Sgt. Hill
	Koenig (corp.)	Quinn	Peterson (3)	Butler (2)	
2d Squad	Walinski	Morgan	Carter	Pickett	
	Adams (corp.)	Bush	Willis	Towney (2)	
3d Squad	Bennett	Schmidt	Miller	Kelley (3)	
	Nelson (corp.)	Schwartz	Humphrey (2)	Stevens (3)	
4th Squad	Barry	Fassett	Wilson	Murphy	

Commanding Officer, Company A: Captain Rowen
Commanding Officer, First Battalion: Major Crosby

CONVENTIONAL SIGNS FOR WAR GAME MAPS

Adopted by Army Service Schools

Improved Roads

Unimproved Roads

Trails

Railroads, Single Track

" Double Track

" Urban or Suburban

Fences, Barbed Wire

" Smooth "

" Worm

" Stone

" Hedge

Streams under 15' wide

" over " "

Embankment

Cutting

Arroyo or Ditch

Buildings

House Barn

Bridges

Stone Culverts

Corn

Cultivated Land

Trees without Underbrush

Woods with Underbrush

Brush

Pine Trees and Rocks

Orchard

Marsh

All open spaces are Grass Lands

First Problem

An Advance Guard Point

EXPLANATION

"The formation of the advance guard must be such that the enemy will be met, first, by a patrol, then in turn, by one or more larger detachments, each capable of holding the enemy until the next in rear has time to deploy before coming under effective fire." (I. D. R. 642.)

The "patrol" which leads the way is called the "point." It is followed by the advance party, support, and reserve, in the order named. These parts combined make up the advance guard. The advance guard is followed by the main body.

Sometimes an advance guard is so small that it will have no reserve. It even may be so small that it will be divided into point and advance party only. Finally, if the whole column on the road is very small, for example, a platoon, the advance guard may be only a point, but always there is an advance guard and a main body if the column is marching toward the enemy; and the advance guard always has a point, although that may be all that it does have.

The commander of the point is under the orders of the advance party commander.

Sometimes an advance guard has two points, one being mounted (cavalry or mounted orderlies) and riding far in advance of the other point. To avoid confusion we call one the "mounted point"; the other the "infantry point."

SITUATION I

Your battalion camped last night along the farm road east of 636 (northeast of Granite Hill Sta.), in friendly country. The battalion has a cossack post in the edge of the woods and near the road 1,100 yards north of 636. It is late Fall and the corn is cut and shocked.

At 7-30 o'clock this morning your battalion formed, ready to march. Your captain ordered the pieces to be loaded, assembled the officers and noncommissioned officers opposite the center of the company, and gave the following verbal order:

A Red cavalry squadron was wrecking the railroad south of Biglerville yesterday. Biglerville is 7 or 8 miles northwest of here. There are no Blue troops north of here. Our battalion is going to march to a place called Hershey Mill, about 6 miles north of here, to pick up some wagons and haul back to this place a lot of forage and flour that the inhabitants have collected for us at the mill. This company will be the advance guard. The main body, which is the rest of the battalion, follows at 500 yards. Mr. Allen, your platoon and the Second Platoon will form the advance party. Here is a map for you. Take that road (pointing to the map and to the north) through 585, 537, 546, Woodside Schoolhouse, 616, to Hershey Mill. March at once. The rest of the company will be the support and will follow the advance party at 300 yards. I shall be with the support. Posts.

Lieutenant Allen summoned the noncommissioned officers of the First and Second Platoons and gave the following verbal orders:

Sergeant Hill, take four men of the first squad and march north on that road (pointing to road a half mile north of camp), as the point. Precede the advance party by about 200 yards. At crossroads and roadforks flash me W, W,* and I will signal the direction. The rest of the platoon is the advance party. I shall be with it. Start at once.

You are Sergeant Hill, platoon guide of the First Platoon. What do you do, up to the time that the point takes up the march on the road?

NOTE.—Before reading what appears below, study your problem and solve it as explained on page 6. Observe the same rule hereafter whenever, at the end of the statement of a "situation," you are asked: "What do you do?" or, "What do you think?" The question, "What do you do?" will be asked frequently. The answer to it should include all orders, exactly as you would give them in the field.

SERGEANT HILL'S SOLUTION

I call out:

Rear rank, First Squad, follow me,

*W, W, means, "Which way?" It can be semaphored in a second, and is very useful to patrols, connecting files, or detachments which need to be guided or directed by someone beyond the reach of the voice.

and march towards the point where the fence meets the bend in the road 800 yards north-northeast of 636.

First, I make sure that the four men follow me, then I call them alongside and, while crossing the field, I tell them what they ought to know about the situation, which is as follows:

The battalion is going about 6 miles north of here to haul back some forage and flour which we shall find at a place called Hershey Mill. There are no Blue troops in that direction, but we may meet Red cavalry, most likely from the west. We are the point. We must keep 200 yards ahead of the advance party. The lieutenant commands the advance party. He has a map and will signal to us which road to take when we come to crossroads or roadforks. Stone is next in command. Any questions?

I will answer the questions and add whatever is necessary to make the men understand their duties more clearly.

On reaching the road, I direct:

McGowan, along the left of road; Stone, along the right. Move out. I'll follow you at 10 paces. Schafer and Ames, follow me at 10 paces. Schafer, along the left of the road; Ames, along the right. Ames, you watch to the rear for signals.

DISCUSSION

Inasmuch as the battalion is ready to march, its actual start depends upon how soon your point marches out. In special cases a point may be told to march out at an increased gait, or even at double time; but ordinarily there is no occasion for doing this. You should, however, lose as little time as possible in starting out. It is not necessary to give your instructions before marching. You can utilize the first minute or two for that purpose, and in the present problem you can safely go bunched as far as the road; then take up a more scattered formation. You will remember that there is a cossack post in the woods north of you, and there is little to be feared until you pass that post.

The lieutenant let you choose your four men from the First Squad; but since the duties of the point, aside from the duties of the leader, are very simple, every requirement is answered by merely taking the rear rank.

Whenever you take a patrol or detachment out for some special task, you should make use of the first opportu-

nity to explain to your men exactly what the conditions are and what you are expected to do. For your guidance in these problems it is suggested that you study carefully the information and instructions given to subordinates in the solutions, and reason out the purpose of each sentence. Also determine, if you can, whether, in your opinion, anything of importance has been omitted.

You may prefer to tell your men that the company is the advance guard; that Lieutenant Allen and the First and Second Platoons are the advance party; that the other platoons are the support and follow the advance party at 300 yards, but all this is not necessary. The essential things are: Your command is the point; it must keep 200 yards ahead of the advance party; and Lieutenant Allen is your immediate commander.

The advance guard point is a patrol, but its route is exactly defined, and it cannot march with the caution that is usually observed by a patrol. It is compelled to use the road. At the same time it should conceal its advance as much as possible. For this reason we sent McGowan and Stone abreast of each other along the sides of the road, where they may take advantage of trees, ditches, or other road features, and avoid the middle of the road. Naturally, McGowan would observe the country to the front and left, and Stone the country to the front and right. You follow at 10 paces, but to one side of the road, in order not to attract attention from a distance.

The troops in rear are compelled to expose themselves by marching in the middle of the road, but the object of the point is to see the road and country in front and flank before any enemy that might be there sees the point. This is possible less often than it is impossible, but the attempt must be made. Also, by using this formation, the patrol is a less definite target in case it draws fire.

One member of the point should always be charged with the duty of watching the advance party for signals. You will be too much interested in the country in front and to the flanks to do so.

SITUATION II

You have reached the crossroads 585. You notice that the cossack post has joined the column.

Mark on the map in pencil (or on tracing paper) the location of the different parts of the battalion, assuming that the battalion marched as ordered, but disregarding any patrols that may be out. Connecting files every 100 yards.

The field train is not with the battalion.

SERGEANT HILL'S SOLUTION

I measure distances from crossroads 585. Call this place "X." The point is at X. It can be represented by a dot (though there may be 20 yards between the leading and rear men of the point).

The advance party is at the place where the wire fence runs west from the road. Its column is so short that it can be represented by a short dash that scales 30 yards.

The head of the support is therefore 530 yards south of X. The support is about 30 yards long. It is represented by a short dash that scales 30 yards.

The head of the main body is 500 yards south of the *tail* of the support, hence 1,060 yards south of X. Its length is represented by a line that scales 300 yards; 220 yards of this represents the length of three companies, the remaining 80 yards represent the length in column of the four vehicles which constitute the combat train (3 ammunition wagons and 1 ambulance).

Connecting files will be represented by a dot between the point and advance party, two dots between advance party and support, and four dots between support and main body.

The tail of the column is therefore in front of the farmhouse 1,360 yards south of X.

DISCUSSION

Of course, you will never be required to make such calculations and measurements in the field, but the problem is given now for several good reasons:

First, you should have a fair idea of the make-up of an advance guard and how it looks on the road.

Second, this problem, and those which follow, must be studied on the map, and it will be necessary to learn to measure distances on the map instead of estimating them by eye, as you usually do in the field.

Third, you are obliged to apply a rule for determining the road space occupied by infantry and wagons. We said that the main body (3 companies) was 220 yards long. The 3 companies have about 432 men (144 men in a company). The easiest rule to remember is that when infantry is marching in column of squads 2 men equal one yard of road space. Therefore, 432 men will make a column 216 yards (roughly, 220 yards) long; that is, they will occupy 220 yards of road space. At drill the distance is less, but on the march the rule given here is accurate enough. Artillery carriages (guns or caissons), wagons, ambulances, and auto trucks each occupy about 20 yards of road space. To know this rule assists you in estimating numbers. Suppose someone shows you a sack of beans and asks you how many beans are in the bag. Of course, you cannot begin to guess. But if you are told that 800 beans weigh one pound you will lift the sack, guess at the weight, and multiply the number of pounds by 800. Now, if you are sent out as a patrol leader and reach a hill from which you see a long column of infantry, followed by a long column of wagons, you cannot count them, of course. But you are trained in estimating distances. Suppose you estimate the infantry column to be 1,000 yards long and the wagon column 500 yards long. Now you can safely report that you have seen about 2,000 infantry followed by about 25 wagons. Or suppose you had a good map and could locate on it the position of the head and the tail of the column. By using the map scale and a little arithmetic you could make a very accurate estimate. But a chance to use this method occurs less often.

SITUATION III

At crossroads 585 you semaphored "W, W," to Lieutenant Allen. He gave the arm signal, "Forward, march." You therefore marched "through" the crossroads. When

you reached the triangle near 537, Lieutenant Allen gave the arm signal, "Column left, march," and you marched towards 546. As you approach the first house on the left (500 yards northwest of 537), McGowan slows down to about a mile and a half gait and looks anxiously toward the orchard and woods west of the house. Stone follows suit.

You call out:

What is the matter, McGowan, do you see anything?

He replies:

Not a thing, but there might be someone in those woods.

What do you do?

SERGEANT HILL'S SOLUTION

I call out to McGowan:

March along a little better than three miles an hour until you see something real.

DISCUSSION

The point must precede the advance party by 200 yards. The advance party and all the troops in rear of it must march at a steady gait unless prevented by the enemy. This means that the point must also march at a steady gait. It cannot approach woods or suspicious places as cautiously as a reconnaissance patrol might do. At maneuvers and field exercises we frequently see the marching rate of the main body reduced to 2 miles or less for no better reason than that the point and other parts of the advance guard are unnecessarily cautious. The point must move at normal marching rate until the enemy prevents it from doing so. The point must take chances when it approaches woods or houses such as caused McGowan to slow down. When the enemy is actually seen, or when the point is fired upon, the situation is quite different, but we shall have more to say about that later.

SITUATION IV

When the point reaches the house on the right hand side of the road, about 600 yards southeast of 546, McGowan says:

Sergeant, we could get a fine view to the north from the second story window of that house. Shall I go there?
What do you do?

SERGEANT HILL'S SOLUTION

I answer:

No.

DISCUSSION

You might be tempted to tell McGowan to mind his own business, but that is not necessary. Never squelch a man for offering a suggestion which, from his standpoint, seems reasonable, unless he becomes a nuisance.

No doubt a good view to the north can be obtained in the manner suggested by McGowan, but before the observer returns to the road the advance party will reach the house. If the point were to adopt a system of sending a man to every favorable point of observation, there would soon be no point left, unless the advance party, and therefore the whole column, halted while the point made use of these places. This is out of the question, of course. It often happens that a member of the point can be directed to march so as to get a better view. For example, if the road passes through a long, deep cut, one man can be sent along the top of the cut. The thing to bear in mind is that no man should be sent on such an errand if he will be unable to get forward at ordinary marching rate.

It is the duty of the *advance party* or of the *support* to send men off the road when it becomes necessary or desirable to do so for reconnaissance or observation.

SITUATION V

The point arrived within 100 yards of 546 and you saw a Blue patrol along the Hunterstown—546 road, marching north, and now 700 yards south of 546. A moment

later you arrived at 546. McGowan points to the west. Between the rows of trees in the orchard straight west of 546 about ten cavalrymen are hurriedly mounting up. About half of them are already riding west deeper into the orchard. They are Reds without a doubt.

What do you do?

SERGEANT HILL'S SOLUTION

I extend my arms horizontally (the signal "as skirmishers, march"), and call out:

Target, cavalry in the orchard; clip fire, faster.

Then I face Lieutenant Allen and semaphore:

Ten men. Cavalry.

Then I join the men who are firing, in order to observe the enemy, the surrounding country, and the effect of our fire.

DISCUSSION

By the time you have done all that the solution includes, it is likely that the patrol will have disappeared and it will be time for you to do something else. What you will do next depends upon the result of your observation.

The Drill Regulations give you short and clear commands and signals. They constitute a special language which all men learn. If you were to form the bad habit of breaking out into ordinary conversation in a situation like the present one, it is not probable that all of your men would know exactly what you wanted. The noncommissioned officer who is so trained in the application of Drill Regulations commands and signals that he uses them instinctively and correctly will get far better results in any emergency. Furthermore, he will give the impression among his men that he understands his business, and this in itself is a very important matter.

In future problems we shall have occasion to apply Drill Regulations, commands and signals. We may as well indicate now, in the beginning, that these commands and signals can frequently be used to indicate to your men exactly what you want done.

When you shout "Target" and pause for a moment, as you naturally will, your men will instinctively look toward you and see you signal "As skirmishers, march." The target itself is so apparent to any one who glances in the direction in which you are looking that it would hardly be necessary to describe it. An unmistakable target within 500 yards, as in this case, requires no announcement of range. The command "Clip fire," without announcement of range, denotes battle sight. Battle sight is even more suitable against cavalry than against infantry, on account of the height of the target. It is entirely proper to command "Faster," even before firing begins. It indicates that when fire is opened you desire a rate of fire faster than the normal.

We recommend that you study the commands and signals used in future problems and determine for yourself whether they answer every purpose and would be perfectly clear to trained troops.

You might have signalled to Lieutenant Allen by holding your rifle horizontally over your head. This signal, which has been used many years, indicates "enemy in sight in small numbers." The semaphore message, "Ten men, cavalry," can be flashed almost as quickly, and it is more definite. While on this subject of semaphore signalling, it is well to add that officers and noncommissioned officers and many privates should be able to semaphore. It is very simple, rapid, and easily learned. If half of the company is proficient, the other half will soon be able to signal fairly well.

There is no doubt as to the propriety of opening fire on the Reds. Their hurried movements would indicate that their halt in the orchard had been interrupted by the warning of their lookout. They know that Blue troops are approaching, but in order to prevent them from getting too much information of our own forces it is best to shoot them up while you have a chance, and fill them with a strong desire to get away.

SITUATION VI

The Red patrol disappeared and was screened from view by the orchard before your men exhausted the first clip.

You immediately directed your point to resume its march to the north at an increased gait, since the advance party had now closed up to 50 yards. In the meantime you shouted to Lieutenant Allen:

Reds have gone west through the orchard.

When the point arrives at the stream crossing between roadfork 544 and crossroad 616, a lively fire opens from the woods east of the road and directly north of you. The fire is over your head, and apparently is directed at the advance party. You judge that there may be either a squad firing very rapidly or a platoon firing slowly. A glance down the road shows you that the advance party has started to deploy.

What do you do?

SERGEANT HILL'S SOLUTION

I shout:

Off the road to the left and up that hollow,

pointing to the shallow hollow 50 yards west of the road, and to the northwest of me. I march to the north, parallel to the road, and as close to it as I can without giving up cover. I personally march far enough to the right to be able to peer over the crest and watch the edge of the woods. It is my intention to halt about halfway to the wire fence, and then decide what to do next when I see what our column is doing and what has happened to the enemy.

DISCUSSION

There are several reasons why it would be unwise for the point to drop in its tracks and open fire. In the first place, it would have a bad firing position. Also, the fire of four or five men would add little to the fire effect unless delivered from the flank. The point is not being fired upon and for the present is free to move. A quick movement off the road and to the left may draw a few shots from the

enemy, but it would probably amount to nothing. The point can help the column most by placing itself in a position to get information, and at the same time be ready to resume the march promptly. If you find later that you can deliver a flank fire, you should seize the opportunity to do so, but for the present it is best to get forward under cover so that you can watch not only the enemy in the woods, but the road to the north and the main road a half mile west of you. Your first position at the stream crossing was unfavorable under any circumstances, but in choosing a better place you should not be drawn farther from the road than is absolutely necessary, and you should not fall back if it is possible to get forward. The hostile force is probably small and will stand for a short time only. It may be the same cavalry party which you drove out of the orchard. In this case its intention probably is to delay our column or make it show its strength. The duty of an advance guard in such a case is to act vigorously and enable the column to march with as little delay as possible.

SITUATION VII

The enemy disappeared north through the woods. In the meantime the advance party had crossed the stream and is now assembling in the road. The point was able to fire a few shots, and then to return to the road and resume the march. When the point arrives 50 yards south of crossroad 616, the command, "Halt," is signalled from the rear. You can see the men of the advance party and support fall out and sit down. The main body is in the valley and is not visible.

What do you do?

SERGEANT HILL'S SOLUTION

I continue the march to crossroad 616 and give orders as follows:

Stone, post yourself here and watch the roads to the northeast, northwest, and southwest. Other men fall out.

I sit down in a place from which I can see the advance party.

DISCUSSION

The column has apparently halted for a rest. When a column halts, the point becomes a "march outpost." If necessary, it shifts its position so as to get the best view of the roads and country to the front and flank. The point should not move a great distance for this purpose. How far is a matter of judgment. Over 200 yards to the front, or 100 yards to the flank, or 100 yards to the rear, would probably be too far. In the present case an advance of 50 yards enabled you to place Stone at the crossroads. This is also the highest point on the spur, and from this position one man can see practically as much as two men can. Hence, the others may just as well rest.

Second Problem

An Advance Guard Connecting File

EXPLANATION

"When the distance between parts of the advance guard or the nature of the country is such as to make direct communication difficult, connecting files march between the subdivisions to keep up communication. Each element of the column sends the necessary connecting files to its front." (I. D. R. 645.)

Usually, a connecting file consists of two men, but special conditions may require the use of one man, or more than two men. The men of a connecting file march together.

The distance between connecting files, or between a connecting file and the subdivision nearest to it, varies according to the situation. Naturally, the distance would be greatest in flat, open country, in broad daylight, and in this case may be as much as 200 yards. The distance would be least on a very dark night. In the latter case the connecting files may be so close as to form a single file at about 5 yards distance.

In daylight, and in case of doubt, 100 yards may be considered a satisfactory average. This distance has two advantages: First, men are trained to measure distances by eye in units of 100 yards. Second, the prescribed distance between subdivisions is easily maintained by sending connecting files 100 yards apart; thus, when 600 yards distance is ordered, the head of the subdivision which is to march with 600 yards distance marches 100 yards behind its fifth connecting file.

SITUATION I

You are Private Dixon of Company B. Your battalion camped last night along the farm road east of hill 636

(northeast of Granite Hill Station). At 7-30 o'clock this morning the battalion formed, ready to march. Your captain ordered the pieces to be loaded, assembled the officers and noncommissioned officers opposite the center of the company, and gave the following verbal order loud enough for the company to hear it:

A Red cavalry squadron was wrecking the railroad south of Biglerville yesterday. Biglerville is 7 or 8 miles northwest of here. Our battalion is going to march about 6 miles north of here to haul back to this place some forage and flour. Company A will be the advance guard at 500 yards. Posts.

You saw Company A march out with point, advance party, and support. It marched north to the road which leads towards 585. When the support had marched about 50 yards to the north from your company, the captain said to Private Scott of your squad:

Scott, take Hanson with you and follow the advance guard at 100 yards as connecting file.

A moment later, when Scott had marched about 50 yards, the captain said to you:

Dixon, take Smither with you and follow Scott at 100 yards as connecting file.

When you reached the road, you saw the main body marching 300 yards in rear of you and two connecting files between you and your company. You also noticed that the major was riding at the tail of the advance guard.

After marching about one and one-half miles you turned the corner 150 yards northwest of roadfork 537, and now, when you are 15 yards beyond the corner, you see that the advance guard support and Scott's connecting file have just halted in the road. On account of the woods you cannot see the next connecting file in rear of you.

What do you do?

PRIVATE DIXON'S SOLUTION

I halt and say to Smither:

Go back to the roadfork and stand where the next connecting file can see you.

DISCUSSION

Imagine that the advance guard support is dragging behind it a string 100 yards long. Scott's place is at the end of that string. Imagine also that Scott drags a string 100 yards long. Your place is at the end of that string. You also drag an imaginary string, at the end of which the next connecting file is supposed to be. Finally, the captain of your company is ordinarily at the end of the string of the last connecting file, but he may close up or drop back for reasons of his own. You have no such discretion. All you can do is to shift slightly, if necessary, in order to see the next connecting file in front, or in order to be seen by the next connecting file in rear. For this reason you sent Smither back to the roadfork. If the distance to the roadfork had been 40 or 50 yards or more, there would have been no object in sending him. The next connecting file would have been there at the same time, or sooner, and would have halted when it saw you had done so.

SITUATION II

When Smither reached the roadfork, he signalled, "Halt," to the next connecting file.

What do you do?

PRIVATE DIXON'S SOLUTION

I call to Smither:

Don't signal, just stand there.

DISCUSSION

Smither does not know his business and exceeded his instructions. If the signal "Halt" is transmitted back to your captain, he will assume that the major had ordered "Halt." You received no such signal, and hence should not permit it to be sent back. If your connecting file merely halts, it is sufficient notice that your imaginary string has halted. Each subdivision of the advance guard tries to march steadily, but sometimes receives short, unavoidable

checks. The officer in command of the next subdivision in rear, or of the main body, may wish to avoid numerous, short halts, which irritate the men and do no good, and to adjust the distance by a slower gait; or he may wish to close up a part of the distance in order to reach a shady place in the road, or in order to get off a conspicuous hill. If he receives the signal "Halt," and knows the major is in front, he must halt practically where he is. Bear in mind, therefore, that signals are to be transmitted only when ordered by proper authority, or when unmistakably given to you by the next connecting file in front or rear of you.

SITUATION III

You reach a point about 50 yards north of roadfork 544, when fire opens to the north of you. The advance guard support has halted near the summit of the low ridge (about 250 yards north of 544). You are then halted on the upslope of that ridge. A minute later Scott signals, "Assemble."

What do you do?

PRIVATE DIXON'S SOLUTION

I signal

Assemble

to the next connecting file in rear, and continue the signal until I see that the connecting file repeats the signal.

DISCUSSION

You have, of course, no reason to question the authority for Scott's signal. The main body is under cover from the fire which you have heard, and can advance. The major is ahead and evidently wants the main body to close up on him; that is, assemble on him. The important thing for you to do is to continue the signal until you are sure that the next connecting file in rear has passed it along.

SITUATION IV

You are still halted north of 544. The advance guard

support has deployed east of the road, but has not yet advanced. Scott is still halted. The main body has advanced a little more than 100 yards, and in the meantime has picked up the last connecting file. There is now only one connecting file between you and the main body, and that connecting file is now closing up on you and keeping about 100 yards ahead of the main body.

What do you do?

PRIVATE DIXON'S SOLUTION

I stand fast.

DISCUSSION

The connecting file in rear of you made a mistake. In our present case it will make little or no difference. You should remember, however, that it is important for each commander of a subdivision of a column to know whether the next subdivision in front is advancing or has halted. Generally, this can be determined only by observing the connecting files. In thick country, and on a winding road, where only one connecting file is visible, that connecting file will deceive the commander if it takes its distance from the rear; that is, if it starts to wind up its hundred yards of string, instead of halting at the end of it.

In a night march the situation is more difficult. The advance guard and all connecting files must guide on the main body. At the same time, the main body must be warned, quietly, if it is jamming up on the advance guard. A connecting file must therefore keep its distance *ahead* of the connecting file or body of troops next in rear, and at the same time give warning if the maintenance of this distance results in jamming. For this reason, the proper distance at night between connecting files is the maximum distance at which a man can be seen in outline.

Third Problem

An Advance Guard Flank Patrol

EXPLANATION

"To afford protection to an infantry column, the country must be observed on each side of the road as far as the terrain affords positions for effective rifle fire upon the column. If the country that it is necessary to observe be open to view from the road, *reconnaissance* is not necessary." (I. D. R. 648.)

"Where the country is generally open to view, but localities in it might conceal an enemy of some size, reconnaissance is necessary. Where the road is exposed to fire and the view is restricted, a patrol should be sent to examine the country in the direction from which danger threatens. The object may be accomplished by sending patrols to observe from prominent points. When the ground permits and the necessity exists, patrols may be sent to march abreast of the column at distances which permit them to see important features not visible from the road." (I. D. R. 650.)

Infantry on the march must protect itself from being surprised or being fired upon, not only from the front, but also from the right or left. To guard against the latter we send out flank patrols when necessary. It often happens that, from the road itself, we can see all the ground so far to the right or left that nothing more than small hostile patrols could be within easy rifle shot of our column without being seen from the road. In such cases we do not bother to send out flank patrols, because a hostile patrol will hardly fire on a company or a battalion. If the distance is great, they could not hit anything. If the distance is short, it is not healthy to open fire, and generally nothing is gained by doing so. Only poorly instructed patrols at maneuvers do such things. But from time to time it is necessary to

send out flank patrols towards woods, houses, or hills in order to find out whether the enemy is there with enough men to be dangerous. These patrols are sent by the advance guard, generally by the advance party if it is strong enough. In this way the information can be obtained before the troops in rear of the advance party come within easy rifle shot of the ground examined by the patrol. Of course, mounted men are generally best for such patrols; but if there are none on hand, or if the ground is difficult, we must use infantry.

The patrol leader is told when to leave the column, where to go, and about where to come back on the road on which the column is marching. When the patrol gets back on this road, the leader will usually find that his company is ahead of him. He is expected to overtake the company if possible, but without double timing. If the patrol has lost considerable distance (say, more than a half mile), the patrol leader should report to the first battalion or company commander that he meets.

SITUATION I

The situation is the same as in the First Problem, to include Lieutenant Allen's order, page 11.

You are Corporal Clark, First Squad, at the head of the advance party and approaching crossroads 585. Your rear rank is in the point, and Pine and Hagen are ahead as connecting file.

A few minutes ago Lieutenant Allen passed the word along that

> Farmers have telephoned that Red cavalry is active again this morning south of Biglerville; that is seven miles northwest of here.

When you are on the road where the fence ends, 200 yards south of 585, Lieutenant Allen says to you:

> Corporal, when we reach the crossroads in front of us, take three men and patrol to those woods (north of letter "S" in Hunterstown). A half mile beyond the crossroads our road turns to the northwest. From the woods you also go northwest until you strike a main road. There is the road I mean (pointing towards S. H., 700 yards north of Hunterstown). That road will take you back to the column. Keep about abreast of the advance party.

(1) What do you think?

(2) What do you do up to the time your patrol starts out in patrol formation?

CORPORAL CLARK'S SOLUTION

(1) I am to go to the woods; then northwest. Column goes northwest also, but on the road. First main road takes me back to the column. Keep abreast of the lieutenant.

Approaching the woods, I want someone in front of me and someone behind. Better have two men in front. They will have more confidence. We shall be on a low ridge, and I will have no trouble seeing the advance party. But the first thing to do is to get through the fence and then organize.

(2) At the crossroad I call out:

> Brown, Quinn, and Peterson, follow me.

I take them through the fence and walk towards the woods, meantime telling the men:

> We are going to patrol those woods; then go northwest to the first main road; then along that road to the road the column will be on. We have to keep abreast of the advance party. Brown, you go ahead now to the nearest point of the woods (south corner). Quinn, 25 yards to the right of Brown. I will follow.Quinn at 50 yards. Peterson, 50 yards behind me.

We take up this formation and march, and watch Hunterstown.

DISCUSSION

When you are given a thing to do, the logical way to go about it is as follows:

1. Be sure you understand what you are ordered to do.
2. Determine the best way to do it.
3. Do it.

Sometimes you will have ample time to follow out this idea. Sometimes, however, you will have barely time to "do it," and must trust to your instinct to pull you through.

In the present problem your first thought should be to fix firmly in your mind the instructions given you by Lieutenant Allen. You have time before reaching the crossroads.

He planned your route with the assistance of his map, but you will have to go without a map. You cannot see what lies beyond the woods. You only know that northwest of the woods there is a main road that will take you back to the column. Lieutenant Allen's directions look simple enough when you examine a perfect map; but if you were on the ground you would realize the importance of repeating aloud, or at least to yourself, the route given you. If there is any doubt in your mind, you should ask Lieutenant Allen to explain it away. If Lieutenant Allen did not have a good map, he would not be able to see beyond the first woods. In that case he would probably send your patrol to the first woods only. Then, later, when the advance party reached the north end of the woods, he would have to send another patrol through the second woods. But he has a map and the advance party is small, so he trusts to your intelligence to make the patrolling easier.

You will observe that your patrol left the column without any inspection, and marched without trying to use cover. Also, Lieutenant Allen did not say what the patrol was to look for. At first glance you would think that this is contrary to Infantry Drill Regulations (par. 609). But there is a difference between your advance guard flank patrol and the patrols that par. 609 has specially in mind. Your flank patrol must go out at once. The men are already in marching trim and pieces are loaded. The patrol will not be out of sight of the column, except perhaps for a few minutes at a time.

Furthermore, if a flank patrol is *required* to advance under cover and the column keeps up the average rate of march, the patrol will usually fail to get anywhere in time to be of use. On the other hand, if the column slows up to let patrols advance cautiously under cover, the column will not get anywhere. Of course, you will use whatever cover you find, but the main thing is to get over your ground fast enough to give the column on the road no excuse for slowing up.

The other point that we raised was, why did not Lieutenant Allen tell you what to look for? If you are sent on

reconnaissance, this would be very important, but the purpose of an advance guard flank patrol is always the same. The purpose is to give warning of an enemy, if seen, in time to save the column from being surprised, and incidentally to drive off any hostile patrols that have a chance to get information of our column. You should understand this so well that it should not be necessary for Lieutenant Allen to tell you each time that you are sent out. How to get this information and how to transmit it to the column will be explained later.

At the crossroads you commanded:

Brown, Quinn, and Peterson, follow me,

and led them through the fence. That is short, complete, unmistakable, and businesslike.

Three of you fellows come along with me

is the way we frequently hear it. It is wrong. Pick your men and name them. Under Lieutenant Allen's orders to "take three men," you would ordinarily take them from your own squad if you had that many left. You would not in that case take any from other squads except for excellent reasons; and in any event, only after telling the lieutenant that you wished to do so.

At first you are so close to the advance party that you can safely advance bunched for 75 or 100 yards, and while marching thus you may give your information and orders.

Your men have heard Lieutenant Allen give you the route. Nevertheless you will repeat it to them as a matter of habit and precaution. The patrol may become scattered, or temporarily separated, and you should make sure that each man knows what ground the patrol is to cover.

More often you will have a single place to go, instead of a long parallel route, as in this case. But even then you should tell your own men, for example:

We are going to that hill to take a look at the country on the other side, then come back to the column.

The formation that we adopted sends two men towards the woods. They are 25 yards apart. Peterson is in the rear for the special purpose of keeping the advance guard

in sight so as to transmit signals. You are in the middle where you can see the whole patrol and run both ends of it. Bear in mind four things:

(a) Someone must march so as to be able to explore the ground assigned to you.

(b) Someone must march so as to keep in touch with the advance guard.

(c) You must place yourself where you can handle the patrol and its movements.

(d) The patrol must make progress in the right direction.

Any formation (diamond, single file, a sort of skirmish line, etc.) which will accomplish these four things is correct, but as a matter of safety you would never march bunched.

There are times, of course, when you cannot help losing sight of the advance guard *temporarily*.

Brown is second in command in your squad (see page 8). Otherwise, you would name a second in command.

SITUATION II

Brown and Quinn have just reached the south corner of the woods. Peterson has veered to the northeast so as to keep the advance party in sight, and is now at the wire fence and 100 yards southeast of Quinn. You cannot see the advance party, but you assume that it is on the road just east of the last letter "N" in Hunterstown, and is still marching. You estimate that in the woods in front you will be able to see a man about 75 yards off in any direction.

What do you do?

CORPORAL CLARK'S SOLUTION

I signal to Brown and Quinn, "As skirmishers, guide left, march," and shout:

One hundred yards. Close up to the edge of the woods and halt.

I call to Peterson:

Fifty yards on the right of Quinn.

Then I move northeast on the ridge and halt (between the tops of the letters "TO" in HUNTERSTOWN, where I can see what the advance party is doing.

DISCUSSION

The Infantry Drill Regulations recommend that a patrol advance in a thin skirmish line when penetrating woods. (Par. 612.) You are not ready yet, however, to go into the woods. It is best to make sure of the direction of march and location of the advance party. Meantime the men can be placed so as to be ready to go ahead in a thin skirmish line when you decide to advance.

We have here a practical application of the use of the Drill Regulations signals in connection with orders. It is doubtful if you could devise a shorter and clearer method of separating Brown and Quinn by a hundred yards. This is a trifling detail perhaps, but you should always look for the shortest and clearest way of getting a thing done.

SITUATION III

The point has arrived about 100 yards southeast of the small orchard which lies 700 yards northeast of you. A connecting file has just appeared from the cover of the woods and is about 100 yards behind the point.

What do you do?

CORPORAL CLARK'S SOLUTION

I place myself between Brown and Quinn, signal

Forward, march,

and march a little west of north into the woods.

DISCUSSION

You are now sure that you know the route of the advance party. By starting now you are somewhat in advance of the advance party. This has two advantages. First, you can give warning more quickly if you encounter anything, and, second, you will overcome in part the delay

which the underbrush will cause and thus be more nearly abreast of the advance party when you get through the woods. A thin skirmish line enables you to examine a greater area of the woods. Even so, you are going to miss the north half of the woods, but that is not very important. The point will pass the north end of the woods. and between you and the point there is little room for a hostile force large enough to be dangerous to the column. You cannot expect to comb the woods for hostile patrols. It is sufficient for you to protect the column against surprise by larger forces.

The patrol will naturally guide on you, and at first will have to shift about to get the 50-yard intervals that you ordered, but very soon your patrol will be marching on a front of 150 yards and will be able to observe a strip of woods 300 yards wide. Your interval between men might be greater than 50 yards, if you can see 75 yards as you estimated, but it is better to be safe and keep the patrol under control.

You are going to lose sight of the column temporarily, but this cannot be avoided. If you left a man in position to see the column, he would not be in a position to be seen by you, and therefore he would be practically useless.

SITUATION IV

You emerge from the woods where the wire fence enters it, 350 yards east of hill 592. Because of the underbrush your progress has been slow. The point and connecting file are on the road northeast of you.

What do you do?

CORPORAL CLARK'S SOLUTION

I give the signal,

Change direction to the left,

and I personally march towards the southwest corner of the orchard, walking slowly until Quinn and Peterson are abreast of me. Meantime I shout to Brown:

Move to the left and follow the high ground so that you can watch to the west.

DISCUSSION

It is difficult to keep direction accurately in the woods or to tell how or where you are coming out. The first thing you discovered on emerging was the fact that high ground obstructed your view to the west. Also, to the northwest you see a line of trees and can distinguish, because of their regularity, the trees which belong to the orchard. Therefore, since you have not yet reached the main road mentioned in Lieutenant Allen's orders, the patrol must get a view to the west and at the same time proceed towards the woods to the northwest. Your present formation is suitable for the next woods and not unsuitable for crossing the open space, since one man now, and yourself later, will be able to observe to the west while the other men of the patrol are extended in the direction of the advance party.

SITUATION V

You emerge from the woods 800 yards south of roadfork 546 and 50 yards east of the road. You see the point marching on the road in the hollow near the house 300 yards southeast of roadfork 546.

What do you do?

CORPORAL CLARK'S SOLUTION

I signal

Assemble

and get on the road at the bend.

DISCUSSION

It is plain that from the road you can see both the advance party and the country to the west. There is no object in marching across country when a road serves the purpose, unless a route across country can be found which offers concealment and easy marching without interfering with observation and communication with the advance party.

SITUATION VI

The patrol is assembled on the road, except Peterson,

who is now climbing the fence.

What do you do?

CORPORAL CLARK'S SOLUTION

I order:

We will march north, zigzag, at ten paces. Brown, lead off on the right of the road; then myself, on the left; then Quinn, on the right; then Peterson, on the left. March out, Brown.

DISCUSSION

You have nearly a half mile to march before you rejoin the column. You know that cavalry has been reported to the northwest. The patrol cannot march concealed, but it should avoid marching in a bunch. A small cavalry party may run into you from the rear or the left. For this reason, men should be placed so as to make a poor target. A patrol which is marching along a road and which is not compelled to conceal itself, but on the contrary, must advance at the normal marching gait, would use the same formation as an advance guard point. It is recommended that you compare the formation in the present case with the formation of Sergeant Hill's point in the first problem, remembering that there were five men in the point.

SITUATION VII

You have just taken up the formation described in the preceding situation. You see the point jump into the road at roadfork 546 and fire into the orchard west of 546. The treetops prevent you from seeing the ground more than 50 yards beyond the south and east edges of the orchard. You see no signs of the enemy.

What do you decide to do?

CORPORAL CLARK'S SOLUTION

I decide to keep a sharp lookout west of the road, particularly towards the orchard; meantime, advance north on the road to the end of the fence which passes along the south edge of the orchard, halt there in observation and

place myself where I can communicate with Lieutenant Allen by signal.

DISCUSSION

The reasons for closing in are to see more of the orchard and to get into communication. Lieutenant Allen will be somewhere around 546. Under the circumstances you cannot yet join the column. Lieutenant Allen needs you and your eyes where you now are. But also he may want to tell you presently what to do. You must make it possible for him to communicate with you. Semaphore signalling without flags is not very dependable beyond 600 yards.

If you go too far, the orchard will obstruct your view. From the position indicated you can see the road which lies a half mile west, the farm road and the woods south of hill 574, and the hill itself as far north as the number 574. At the same time you are able to communicate with Lieutenant Allen.

SITUATION VIII

As you arrive at your new position (50 yards south of the fence) firing ceases. You see no signs of the enemy anywhere. Lieutenant Allen semaphores:

Attention:

You acknowledge, and he semaphores:

Patrol orchard and return.

What do you do?

CORPORAL CLARK'S SOLUTION

I acknowledge the message (semaphore the letter "R"), and order:

Quinn, 25 yards on my left. Peterson, 25 yards on my right. Brown, follow Peterson at 40 yards.

Then I march northwest.

DISCUSSION

The situation now is a little different from the situa-

tion in the woods, where you marched on the broadest possible front. You know that you will be able to see far between the rows of trees in the orchard. You can extend the *vision* of the patrol considerably only by separating its members by so much distance that you will lose control. There was something in the orchard a moment ago. It is best to keep control and get at least three rifles on anything that you meet.

There may be a surprise party in store for you, hence, you should leave one man farther back. This will lessen the chance of a complete surprise, since this man may escape or otherwise give warning. Suppose that the patrol marched well bunched and was caught by the enemy in a situation which prevented the firing of a shot. This would happen very seldom, but if it did, Lieutenant Allen, hearing nothing, would assume that you were progressing and that therefore the orchard was clear of the enemy. But in the formation actually adopted you have given at least one man a chance to give warning either by fire or by escape.

By placing Brown behind Peterson, Brown is nearer Lieutenant Allen, and he is the last man to enter the orchard. Therefore, his position has a double advantage.

SITUATION IX

You emerge from the orchard at the farm road on the west edge. You see four Red cavalrymen slowly riding north on the road 700 yards west-northwest of you. There is nothing else in sight.

What do you do?

CORPORAL CLARK'S SOLUTION

Pointing out the Red cavalrymen, I call to Quinn and Peterson:

Range, seven hundred. Fire at will.

Then I set my sight and fire.

DISCUSSION

An advance guard flank patrol is a *covering* patrol. Be-

sides giving warning of the approach of the enemy, it should drive off the enemy when possible. The more information the enemy gets concerning us, the greater is the disadvantage to us. A column can seldom march secretly, but frequently it can prevent the enemy from learning all that is worth knowing. This leaves the enemy more or less in the dark. His actions cannot be planned so well, and hence they will not be so inconvenient or damaging to us. You may not hit a man or a horse in the present case, but the mere fact that these four men were fired upon, particularly by someone off the road, will make them extremely cautious for some time to come. Cautious men learn very little.

The disadvantage of firing lies in the fact that it alarms the column and may delay it to no purpose. However, this depends upon the commander and the amount of firing. There was a time when the tactics of the march were so imperfectly understood that a few shots on the flank would stop a brigade, but now we seldom see such absurd things. You knew before you opened fire that the Red cavalrymen would gallop off and probably would be beyond your range or vision before your men loaded the next clip. Then all would be quiet. The column would continue its march. So, under the circumstances, 50 cents worth of ammunition will do more than 50 cents worth of good.

Having attracted the attention of the column, you should show yourself as soon as possible and make it absolutely clear that there is nothing to warrant an interruption of the march.

"The aiming point or target is carefully pointed out. This may be done before or after announcing the sight setting. Both are indicated before giving the command for firing, but may be omitted when the target appears suddenly and is unmistakable; in such case battle sight is used if no sight setting is announced." (I. D. R. 135.)

Sometimes we take the trouble to designate the target when it is not necessary. On the other hand, we sometimes fail to designate the target when it is so indistinct that there is slight chance that our men will pick it up without careful designation. Only experience and practice will

remedy this. In the present case there should be no difficulty. The four cavalrymen loom so large and present the only possible target in the direction in which you are pointing that it is unnecessary to waste words in designating the target. If there is any doubt in your mind, it is better to describe the target.

SITUATION X

The Red cavalrymen have disappeared. There are no other signs of the enemy. Between the rows of trees the ground is visible to the north and south edges of the orchard. Brown is about 75 yards east on the farm road.

What do you do?

CORPORAL CLARK'S SOLUTION

I call to Quinn and Peterson:

Follow me at 20 yards.

Then I march east along the farm road through the orchard, signalling Brown:

Forward, march.

DISCUSSION

Nothing remains but to rejoin the column, showing yourself as soon as possible. You will make better time along the farm road than by going to the north edge of the orchard. The formation adopted is convenient, considering the location of your men, and serves your purpose.

SITUATION XI

You have arrived on the main road 200 yards north of roadfork 546. The tail of the main body (combat train) is approaching the bridge 400 yards north of you. There is a squad marching on the main road about 100 yards ahead of you.

What do you decide to do?

CORPORAL CLARK'S SOLUTION

I decide to overtake the last company and report to its captain.

DISCUSSION

Lieutenant Allen is nearly a mile ahead of you. You could not overtake him unless you marched during two of the hourly halt periods, or passed the marching column at a greatly increased gait. It would be hard marching in either case. Under the circumstances you are justified in reporting to the captain of the last company. The one thing you should *not* do is to straggle behind, or drift around in the column, subject to no one's orders. That would be contrary to the spirit of Par. 376, I. D. R., which says:

"Any officer or noncommissioned officer who becomes separated from his proper unit and cannot rejoin must at once place himself and his command at the disposal of the nearest higher commander.

"Anyone having completed an assigned task must seek to rejoin his proper command. Failing in this, he should join the nearest troops engaged with the enemy."

Fourth Problem

The Platoon as an Advance Party

EXPLANATION

"The advance guard commander is responsible for its formation and conduct. He should bear in mind that its purpose is to facilitate and protect the march of the main body. Its own security must be effected by proper dispositions and reconnaissance, not by timid or cautious advance. It must advance at normal gait and search aggressively for information of the enemy. Its action, when the enemy attempts to block it with a large force, depends upon the situation and plans of the commander of the troops." (I. D. R. 640.)

"The support sends forward an advance party. The advance party, in turn, sends a patrol, called a point, still farther to the front. * * * (I. D. R. 645.)

"They facilitate the advance of the main body by promptly driving off small bodies of the enemy who seek to harass or delay it; by removing obstacles from the line of advance, by repairing roads, bridges, etc., thus enabling the main body to advance uninterruptedly in convenient marching formations.

"They protect the main body by preventing the enemy from firing into it when in close formation; by holding the enemy and enabling the main body to deploy before coming under effective fire; by preventing its size and condition from being observed by the enemy. * * *" (I. D. R. 636.)

The present problem is designed to illustrate how the advance party commander assists the advance guard in facilitating and protecting the march and in taking proper action when the enemy is met.

SITUATION I

A week ago we marched south with our division through Biglerville and Gettysburg (Gettysburg is 2 miles

due south of Boyd S. H.). We are in the enemy's country. Our regiment was left back to guard the railroad over which our supplies come, while the rest of the division went ten miles south of Gettysburg and now confronts the enemy.

Our battalion and the machine gun company is in Gettysburg, while the rest of the regiment is scattered along the railroad to the north, the nearest detachment being Company E at Biglerville.

At 9-00 o'clock this morning Companies A, B, and C, and the machine gun company were hurriedly assembled and marched north out of town; Company A in the lead. You are 1st Sergeant Holmes, Company A. The captain, who is the only officer with the company, called the noncommissioned officers to the head of the company during the march and said:

> The enemy attacked Company E at Biglerville this morning. Our battalion leaves Company D in Gettysburg. The rest of the battalion and the machine gun company are going to attack the enemy at Biglerville. This company will be the advance guard. The main body will follow us at 600 yards. Sergeant Holmes, your platoon will be the advance party. The rest of the company will be the support and will follow you at 400 yards. I'll be with the support and will send out the flank patrols. Here is a map. Take this direct road to Table Rock; then past Gainer to Biglerville. When we reach the outguard, the battalion will halt and the advance guard will get its distances. Posts.

The battalion halts at the outguard, where the Texas and Table Rock roads meet, one mile south of Boyd S. H. (500 yards south of edge of map), and the captain orders you:

> Move out on this right hand road.

It is September and the corn is head high. Pieces are loaded.

What do you do up to the time the advance party marches?

THE FIRST SERGEANT'S SOLUTION

After receiving the captain's first order, and before reaching the outguard, I make sure that the noncommissioned officers of my platoon understand the situation as stated by the captain. On arrival at the outguard, I order:

Sergeant Hill, take four men of the Second Squad out this right hand road as point. Precede the advance party by 250 yards. At crossroads and roadforks look to me for direction.

(I assume he takes the rear rank, Second Squad.)

When Sergeant Hill has marched out, I order:

Butler, take Quinn with you, and follow the point at 100 yards as connecting file.

While the point and connecting file are gaining distance, I inform the platoon as follows:

Company E was attacked at Biglerville this morning. Our battalion left Company D in Gettysburg. The rest of the battalion and the machine gun company are going to attack the enemy at Biglerville. Our company is the advance guard and this platoon is the advance party.

When the connecting file has marched nearly 150 yards, I command:

As skirmishers, guide right, march; platoon column, march,

and order:

Column of files each side of the road. Corporal Koenig, in rear to watch for signals. Peterson, join First Squad.

DISCUSSION

You observe that the advance guard has no reserve. It would split up the company into too many parts if the advance guard, in this case, had a reserve. The company is therefore divided in the same manner that the support of an advance guard would be divided; that is, it has an advance party and a support proper. The point belongs to the advance party. You have the point, the connecting file, and the advance party proper, all under your command.

Your noncommissioned officers know the situation. During the minute or two that the platoon stands halted, it is well to inform your men briefly what the situation is.

Whenever possible, you should give your men some idea of the situation and of the job they are working on. In peace time exercises this policy increases the interest of the men, and in actual warfare it is frequently necessary. Some of the men may be called upon to act independently, in charge of the patrols or otherwise, and they cannot be ex-

pected to do good work unless they know what is going on.

An advance party of two platoons might have an officer or sergeant and one squad as point, but in the case of a single platoon it is better to use only a sergeant and a half squad, unless there is a mounted point in the front; in the latter case, a squad would probably be better.

The distance between the point and advance party will vary according to the situation. In the present case, the country is open and the enemy is aggressive (he has attacked Company E), and the advance guard distances are longer than would be the case in close country, or where the enemy is not aggressive; as, for example, if he is being pursued. We might send the point 300 yards in advance, but certainly not less than 200 yards.

In some regiments there is an inclination to use more connecting files than are necessary. In the present case, there are a number of bends in the road and patches of woods along both sides of it. A connecting file, and one only, is therefore necessary, but it is better to give it the usual 100 yards distance from the point.

The captain left to you the selection of the leader and the size of the point; also the question of distances and connecting files. You may be sure, however, that the captain will observe how you handle your little problem and will correct any mistake you make. In the same way, you will watch Sergeant Hill start his point, but you will not interfere or make suggestions unless he does something wrong. Where there is only a slight difference of opinion as to minor points, the captain will not interfere with you, and you will not interfere with Sergeant Hill.

The point takes an inconspicuous patrol formation, but the advance party cannot make itself quite so inconspicuous. If the advance party consists of more than one platoon, it is probably better to march it in column of twos, the men separating so as to march in double column of files along the sides of the road. Where the advance party is a single platoon, there are several advantages in deploying as skirmishers and then marching as a platoon column, the men spreading as already mentioned. There is room between

the fences for the original deployment, since the platoon column soon relieves the crowding. The platoon is then ready to jump into place in an orderly skirmish line the instant you stretch your arms laterally to the signal: "As skirmishers, march." You should drill your platoon frequently in deploying from platoon column to skirmish line to the front, right front, left front, and even to the right and left. You should place yourself quickly where you wish the center of the line to be, and extend your arms so that they mark the exact line you wish to form.

The captain said that he would look out for flank reconnaissance. Your advance party is really too small to do so. However, you will watch the flanks very closely, and may even send a man to some *nearby* high point, but only when this point is especially advantageous for observation. In this connection, compare Situation IV, First Problem.

It might have been better to have assigned two platoons to the advance party and charge it with the flank reconnaissance. It takes training and judgment to determine what flank reconnaissance is necessary and what is unnecessary. Possibly, when you have shown that you possess good judgment in such matters, and another case like the present one arises, the captain will take advantage of your judgment and make an advance party strong enough to handle the flank reconnaissance. There is, of course, an advantage in sending flank patrols out from the subdivisions farthest in front.

All of Corporal Koenig's squad, except Peterson and the corporal himself, have been used in the point and connecting file. The corporal is available to march as platoon guide temporarily, but particularly to watch for signals from the rear. Peterson should be assigned to any squad that has a blank file. If no squad has a blank file, he may be assigned to any squad and will march in the line of file closers when the platoon is assembled.

SITUATION II

The advance party, marching at ordinary gait, reached roadfork 511 (near hill 527), and is now only 75 yards be-

hind the connecting file. The connecting file appears to be 100 yards behind the point. It is evident that the point is marching cautiously.

What do you do?

THE FIRST SERGEANT'S SOLUTION

I order:

Hagen, jog ahead and overtake the point. Tell Sergeant Hill to march faster and keep his distance of 250 yards.

DISCUSSION

In a small column the advance party is really the pace-maker. It must push the point ahead. In every case the column wishes to march at the regular gait. In the present case it is very necessary that the column be not delayed through the cautiousness of the point. We are still several miles from Company E and a difference of five minutes in the time of our arrival may have an important effect. In this connection compare Situation III, First Problem.

You might hasten Sergeant Hill along by signalling, "Forward, march," or better still, by semaphore message.

SITUATION III

The advance party arrives on the low ridge 100 yards south of 608 and is fired upon from the north. Your instinct tells you that the fire comes from the vicinity of the road, at a distance of about a half mile. The fire is a ragged volley, apparently a dozen rifles.

What do you do?

THE FIRST SERGEANT'S SOLUTION

I jump to the right hand fence, meanwhile shouting and signalling:

As skirmishers, march.

Then I drop down and look for the enemy.

DISCUSSION

Combined with Situation IV.

SITUATION IV

The instant you lie down you catch the movement of men in the edge of the cornfield, three fingers east of the house 700 yards to the north. The treetops in the ravine 200 yards north of you are about 5 feet below your line of sight. After the ragged volley there is a slight pause in the enemy's fire, followed by "fire at will" at the rate of about one shot per second. The fire seems to be high. The point is not visible.

What do you do?

THE FIRST SERGEANT'S SOLUTION

I shout,

> Range, seven hundred. Target: from the house on the road, 3 o'clock; 3 fingers; edge of cornfield. Fire at will,

and then examine the target and observe the fire with my field glasses.

DISCUSSION

As you march along the road you observe from time to time positions in front and on the flank from which the enemy might open fire. With these positions in mind, you probably decide beforehand, in a general way, what you will do in case you are fired upon. Probably all you can do in most cases will be to decide to which side of the road you will jump, in case the road itself is unsuitable. The rest may depend upon details which you can hardly foresee or count on. When you arrived about 175 yards south of 608, and almost a minute before firing began, you could see the country to the north for about a half mile. Along the left you could see an extensive cornfield extending north from 608, and beyond that, near the house, the edge of another cornfield. This was your first glimpse of the country immediately north of 608. You probably asked yourself: "Which side of the road is best now, in case we are fired upon from the next ridge?"

If you were fired upon from the north and jumped to the left side of the road you would commit yourself to an advance through the large cornfield. In the cornfield the men would be safe from fire, but, on the other hand, would not be able to fire on the enemy. Furthermore, your progress would be very slow and patrolling would be difficult. If your command were a patrol, compelled to force its way north, with no column in rear depending upon it to clear the road, an advance through the cornfield would be satisfactory. In the present case, however, it is your duty to drive away small hostile parties, and also to get forward. The best line of advance for this purpose is east of the road. In a very short time you are covered by trees of the ravine, then by the ravine itself, and, finally, when you are again visible to the enemy, you will be so close that he will not stand unless his force is much larger than his fire indicated. You will have delayed the column very little, all things considered.

The advance party is made strong enough, and is sent far enough in advance of the support, to prevent the enemy from bringing an effective rifle fire on the support until it can deploy. But the advance party is also made strong in order to be able to push small hostile patrols out of the way and thus save the support the necessity of deploying, and save the whole column more than trifling delay. If you estimate that the enemy in your front is so weak that you can handle him alone without assistance from the support, your play is to go after him as soon as you can locate him and give your advance party a proper formation. In the present case you have as yet no excuse for awaiting the assistance of the support.

A road is usually about 60 feet wide between fences. This gives deploying room for 2 squads only. Since the advance party must deploy and advance, it is best to form a good skirmish line first, even if you lose a man or two.

A small force like your advance party should not deploy in too thick a line. You have 25 rifles in your firing line. In the road there is scarcely room for half of them. It is best for your expected fight, and also is best from a

disciplinary standpoint, to insist upon the formation of a proper line and thus defeat the inclination of the men to drop in their tracks. By jumping to the right hand fence, meantime giving the signal for deployment, you throw the right half of the platoon over the fence and into the field on your right. The left half of the platoon will be in line quickly in the road. Your commands for firing can be given almost at once. The men nearest you then open fire. The others will open fire upon arriving in good firing positions, approximately on the line. The men who are still running to their places may not hear your first orders as to range and target, but repetition will soon remedy this.

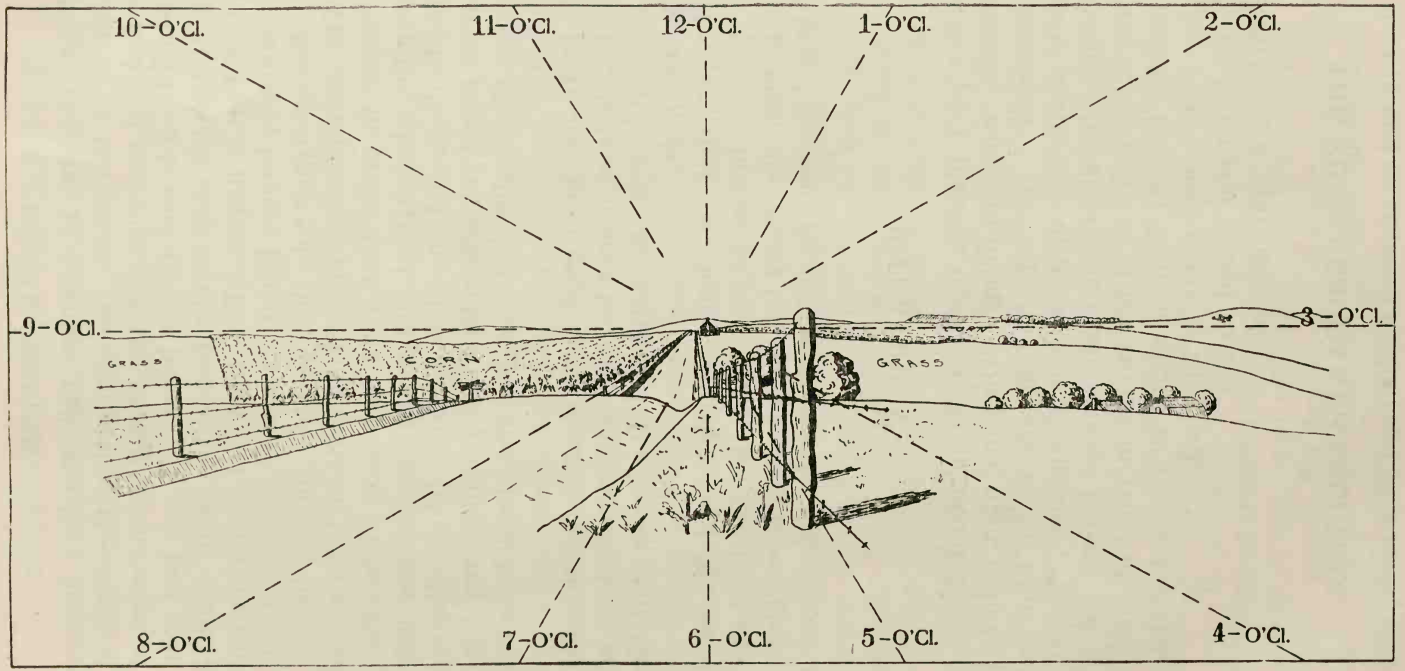
You may indicate the range before the target or the target before the range. In the present case it makes no difference.

In designating a target which your men will probably have difficulty in seeing quickly and easily, you should always follow a logical system. To illustrate what we mean, we shall analyze your target designation in the present case. When you shouted "Target," your men were warned to listen attentively and look sharply. When you shouted, "From the house on the road," you indicated a reference point that the men could pick up quickly and without fail. Your next command was, "3 o'clock." The men then looked in the direction in which the hour hand of the clock would point at 3 o'clock, if the house were the center of the clock. When you commanded "3 fingers," your men held up three fingers at right angles to the hour hand, with the outer edge of the left finger against the house. They knew then that your next command would indicate some spot very close to the point where the line of sight past the outer edge of the right finger intersected the hour hand of the clock. So when you commanded "Edge of cornfield," your men not only knew which cornfield you referred to, but they also knew about how far east of the house they should look for their target.

Suppose now that you had said, "Target: edge of cornfield, 3 fingers, 3 o'clock from the house on the road." By the time you had pointed out to them the house on the road, your men might have forgotten the o'clock and number of

fingers and the particular spot that you wished them to look at. The logical system, therefore, is to warn the men by shouting "Target"; then indicate the point which you propose to use as the center of the clock; then indicate the direction in which the imaginary hour hand is pointing; then indicate the number of fingers; and finally indicate the indistinct point at which you desire to direct their attention. If you reverse this order, or mix it up, or even if you give the proper order too rapidly, you will find that you will have to repeat yourself.

If your men have any difficulty in understanding the use of the clock face, tell them to imagine that they have a photograph of the country in front of them, and that the house on the road is the center of the photograph. Now, if the photograph is placed against a wall and the hour hand of the clock moves around it with the house as a center, it will be clear that "12 o'clock" indicates a line extending beyond (north) of the house as far as they can see; "3 o'clock" indicates a line toward Herrman; "9 o'clock" indicates a line towards Texas; and "6 o'clock" indicates a line from the house towards the platoon. The sketch on page 53 represents the country as seen by your platoon. The house is in the center of the sketch. By studying the radial lines you will readily understand the use of the vertical clock-face system on ground which is roughly a horizontal surface. (This sketch has been prepared from the map only, and not on the ground. Defects in the sketch might be discovered by a visit to the ground, but it is probably correct in the main, and serves our purpose.)


10-O'Cl.
11-O'Cl.
12-O'Cl.
1-O'Cl.
2-O'Cl.
9-O'Cl.
3-O'Cl.
GRASS
CORN
GRASS
8-O'Cl.
7-O'Cl.
6-O'Cl.
5-O'Cl.
4-O'Cl.

When the arm is extended full length, 3 fingers will measure $\frac{1}{10}$ of the range. You know that the range is 700 yards and you saw signs of the enemy in the edge of the cornfield 70 yards east of the house. If you had seen the enemy 100 yards east of the house, the point would have measured 4 or $4\frac{1}{2}$ fingers. But when you are on the ground, the distance in fingers is determined directly by trial, and not by the arbitrary rule that we have adopted here.

Whenever possible, you should indicate the two ends of your target in order that your men may distribute their fire over the whole target, but in the present case it is impossible to do so and open fire quickly. The full extent of the target is not yet determined and you must trust to luck in getting distribution. Later, you may be able to correct this defect.

If there had been good cover nearby for the platoon, it would have been proper to break into double time at the first volley and seize advantage of this cover, but that is not the case here.

The fact that you deployed and opened fire does not mean that you intend to stay here. By the time the last man is in place and ready for the advance, it would be well to whistle "Suspend firing," and quickly judge your next move.

SITUATION V

After your platoon has been firing about 30 seconds, you whistle, "Suspend firing." Only one man, Schafer, has been wounded. The support appears to be approaching the house south of you, in column of squads. The enemy's fire continues at about the same rate as before, but is not accurate. The point is in the ravine in front of you. The road parallel to your front is about 10 feet lower than the treetops in the ravine north of the road.

1. What do you intend to do?
2. What are your orders?

THE FIRST SERGEANT'S SOLUTION

1. I intend to advance to the road by a rush; then ad-

vance in quick time to the north side of the wooded ravine, carefully watching both flanks.

2. I blow a short whistle blast and signal:

Cease firing.

Then I shout:

Get set.

When all appear to be ready, I jump up, shout,

Follow me,

and lead the platoon at a run towards the road.

DISCUSSION

You may run into a larger Red force than you anticipated. That remains to be seen. If you judge their strength from the volume of their fire, you are obliged in this case to advance almost at once. Your advance may prove that your guess as to the hostile strength is wrong. On the other hand, if you wait for the support to help you out and then find later that 8 or 10 Reds have held you up, you will be very much disappointed with yourself.

Unless the enemy increases the volume or effect of his fire, you should have no difficulty in reaching the road and the cover of the trees in the ravine. As soon as the trees screen you from the enemy, he will have no target to aim at. From this point you can safely advance at a rapid walk until you are again exposed to the enemy's view. This will be when you have arrived some distance north of the ravine.

The Infantry Drill Regulations teach that fire superiority is necessary to the successful advance of an attack. This is not literally true in the case of every small detachment, or where a greatly superior force is peculiarly favored by the ground. In the present case the defender's fire is not effective, and you have good cover a short distance in front of you. It would be wrong to settle down into a fire fight with a view of creating a powerful moral effect on the enemy by the use of fire, or of matching your fire with his. When you have passed the ravine, and are again exposed to the enemy's fire, the situation may be different because of the open ground between you and him.

Whether the platoon is alone, or deployed as part of the company, I. D. R. (222) require you to arrange carefully the details for a prompt and vigorous execution of your proposed rush. You are told to cause the men to cease firing and to hold themselves in readiness to spring forward instantly. No preparatory command or signal is prescribed, although the signal, "Cease firing," and the caution, "Get set" or "Ready," will be a sufficient indication to trained men. Furthermore, you will not jump up and lead the platoon forward until you and your guide can determine from the positions of the men that all are ready, and understand. You should teach them to draw up one knee close to the body, without raising the body from the ground.

When you signaled, "Cease firing," the men were already in the position of "suspend firing." The difference between the two is, that in "cease firing" the sights are laid down, the men are not required to keep their eyes on the target, and they know from experience that a movement or change in formation will probably follow.

The flanks of a deployed line are vulnerable. If there are few men in the line, men cannot be spared for combat patrols. The commander must watch his flanks very closely, and do the best he can without sending patrols to a distance. The situation also affects the question of flank protection. If your platoon were alone, with no supporting troops near, you would be obliged to detach men to watch your flanks in an attack over the ground on which we are now working. In the present case, the support is behind you and very likely has patrols on the flanks.

Unless Schafer's wound is one which requires immediate action, which is rarely the case, you are obliged to leave him by the side of the road, without an attendant. In a short time he will receive more intelligent care from the sanitary personnel. Under the circumstances it would be wrong for you to bother about him, and the men nearest to him could do no more than help him to a convenient place, unless he were threatened with a heavy loss of blood. When proper medical care is so near at hand, it is not well to tinker with a man, and it is wrong to decrease your fight-

ing strength because of any undue regard for his comfort.

SITUATION VI

After passing the 608—Herman road, the whole platoon advanced east of and parallel to the 608—Table Rock road.

The platoon has now arrived 400 yards north of crossroad 608, between the orchard and road. The edge of the cornfield is clearly visible. There are no signs of the enemy. The point is in the edge of the cornfield, west of the road, 450 yards north of crossroad 608. The connecting file has joined the platoon. The support appears to be between crossroad 608 and the wooded ravine, but you cannot see whether it is deployed or assembled.

What do you do?

THE FIRST SERGEANT'S SOLUTION

I order:

Butler, tell the point to continue the march on the road; then you and Quinn follow again at 10 yards as connecting file.

To Corporal Clark:

Your squad will go 50 yards into the cornfield, about where the enemy was, and search for dead and wounded. Then join me on the road.

I lead the remainder of the platoon in skirmish line towards the house, with the intention of continuing the march on the road in platoon column.

DISCUSSION

A small body of hostile troops can delay our column by firing upon it, no matter how aggressively we handle the advance guard work. One of the great advantages in having cavalry attached to the infantry is due to the fact that the cavalry can frequently drive off these small parties without delaying the infantry column. If our battalion had had even a half troop of cavalry attached to it, there probably would have been no delay. The cavalry would have preceded the infantry by considerable distance, and, by trotting ahead after this minor fight, would have regained

whatever time it lost by reason of the fight.

You have been delayed a few minutes, however, and now, having compelled the enemy to withdraw from your front, it is urgent that you make the delay as short as possible. It does not seem necessary to comment upon the manner in which this was done. You merely reëstablish your advance party on the road and start forward. If the point were not conveniently located, you would probably prefer to send out a new point.

There is a twofold reason for sending Corporal Clark into the cornfield in search of dead and wounded. It may be possible to assist some men who might otherwise escape discovery by the inhabitants, and thus suffer unnecessarily. A more important reason, probably, is the fact that valuable information may be obtained, not only from the uniforms and pockets of the dead and wounded, but also by questioning wounded men who are conscious. If it involved a long detour, you would not send a patrol on such a mission, with such lack of evidence as to whether there really were any dead or wounded.

SITUATION VII

Corporal Clark's squad has rejoined. The corporal reported:

> I found a wounded cavalryman. He said that his squadron had been sent to cut the railroad, and had fought Blue infantry this morning. I brought him to the road and left Hagen in charge, to turn him over to the captain.

From Table Rock S. H. you saw high dust south of Table Rock, and a moment later you caught a glimpse of 8 or 10 mounted men rapidly riding north into Table Rock.

You reach the first house (south end) of Table Rock. On each side of the road there is a broad ditch nearly two feet deep. A stiff volley comes from a direction squarely to the left of you, and from a point rather close to you. A momentary pause follows.

What do you do?

THE FIRST SERGEANT'S SOLUTION

I face about; shout, "Cover," and jump into the ditch on the west side of the road. Then I look for the enemy.

DISCUSSION

While you were marching into Table Rock, the ditches alongside of the road certainly attracted your attention because of their tactical value. In a former situation we said you would study the ground as you marched. Your advance party is likely to be fired upon from any direction. The troops in rear of you will be saved from such annoyance because of your advance party marching in front, and the flank patrols that the support will send out from time to time. In a large command the advance party itself will receive better protection because the command will have cavalry, and this cavalry can send patrols to the flanks ahead of the advance party.

While approaching Table Rock you probably thought as follows:

If we are fired upon from the front, we'll make a break for the nearest houses; if we are fired upon from the right, we will jump into the ditch on the right; if we are fired upon from the left, we will jump into the ditch on the left.

In other words, your action was practically decided upon before the volley was fired. This is not *always* possible, but with practice in field exercises you will find that you will rarely be caught unprepared for reasonably quick action.

In a previous situation we pointed out that you should make the platoon do exactly as you wished. You cannot do so if you are in the habit of attempting impracticable or impossible things. Generally, only the simplest thing will work. Your men look instinctively to you the instant the first shot is fired, unless their experience has shown them that you get rattled, and that they have to shift for themselves until you pull yourself together. In the present case, if you jump into the ditch and say nothing, the men will probably follow suit. But no matter how obvious may be the necessity for seeking cover at once, an order to that

effect gives the impression of quick thinking and decision. To act properly even in such a case trains your men to expect orders, and not to adopt their own ideas. Sometimes, when the natural inclination of your men may be to do one thing, you may have a very good reason for wanting them to do something else. In such case, if your men have learned that you never fail to indicate quickly what you want done, their eyes and ears will *expect* signals and orders, and you will have their attention at once.

Noncommissioned officers of infantry and cavalry are often suddenly confronted by many peculiar and novel situations requiring quick and decisive action. In such moments they need the strict attention of their men, but they will not receive it if the men have discovered that it is wasted.

In a sense, the enemy has surprised you. Let the men get the best cover available, while you expose yourself only enough to locate the enemy, and see what else is going on. One of the disadvantages of marching in platoon column is the mixing of the platoon which results when the right half crosses the road and joins the left half. This could be avoided by signalling, "As skirmishers, march," and facing to the left, thus placing the right half of the platoon on the right. However, the mixing which results from the method which we have adopted, affects only two squads and can be straightened out quickly. We shall leave it this way for the purpose of the next situation.

If you march along the road and estimate that the danger is greatest on one or both flanks, a platoon may be marched in platoon column, but broken in such a manner that one squad leads, say, on the right side of the road; the next squad follows, but on the left of the road; the next squad on the right, and so on. Whichever flank the platoon faces, squads will be together when formed in one line and there will be no crowding. When you reach a point on the road where the greatest danger is in front, it will only be necessary to order, "Close up," and the platoon will be ready for a rapid deployment astride the road. If serious danger is apprehended, you would change the formation as the direction of possible danger changed.

You are frequently told that it is unpardonable to be surprised. This hardly applies to patrols, or even small advance parties. It does apply to your battalion. The battalion uses the point, advance party, and flank patrols to guard itself against surprise. By surprise we mean, in the present case, unforeseen hostile fire at effective range.

SITUATION VIII

After the volley the enemy fires at will. There are probably 50 rifles firing upon you. You soon realize that the enemy is firing through the tops of the trees along the creek northwest of you, and therefore not very accurately. In a moment you see between these treetops the movements of several men who are firing from the edge of the woods 500 yards away and on line with hill 651. The point has previously taken the left hand road and is not in sight. The support, southwest of roadfork 567, is starting to deploy into the orchard. All this has happened in a half minute. It has taken you this much time to get your bearings and locate the enemy.

What do you do?

THE FIRST SERGEANT'S SOLUTION

I shout,

Target,

extend my arm towards the woods, and add,

Look sharply up the slope. Edge of woods; range, five hundred. Fire at will.

Then I resume my observation.

DISCUSSION

You have a difficult target to describe. If we were on the ground we might find some conspicuous object to assist in target designation. On the other hand, we might see as little as we see on the map, or even less. The conditions of our ordinary fire problems are generally too ideal. We

can quickly pick up the limits of the target. The view is generally unobstructed. In the present case we cannot wait to make a long examination and explanation. The support is deploying with the intention of attacking. It is the duty of the advance party to attract to itself as much of the enemy's attention and fire as possible. Hence, the advance party should fire as soon as it locates a part, if not all, of the enemy's force. All that you can do for the present is to direct the attention of your men to the edge of the woods. Every man must find for himself an opening through the treetops, and fire upon whatever men he sees through his opening. Each man's view will be different. None will see much. This is no time to bother with fire distribution. Firing exercises teach sound principles of command and execution. You will apply these principles whenever you can. When, in your judgment, the situation makes it extremely difficult, if not impossible, to indicate the limits and to expect fire distribution, do not fool away valuable time in a useless effort to be perfect, but tackle your job in the simplest and most practical way that occurs to you. This advice, however, should not be made an excuse for failing to be more definite and exact when time and conditions permit.

In a previous situation the advance party alone drove out the enemy. It is evident it cannot do so now. The volume of the enemy's fire has caused the support commander to see the situation in the same light. The support is therefore preparing to assist you in driving the enemy out, or in determining his exact strength and position. The most decisive results will come from the action of the support. The more you can attract the enemy to the advance party, the easier will it be for the suppoprt, when finally it is able to open fire and push its attack.

You might be tempted to advance at once under whatever cover is offered by the trees along the creek, but you will not gain time by doing so, and when the support opens fire the advance will be much easier.

SITUATION IX

Four minutes after you opened fire, the right flank of the support appeared in the northwest corner of the orchard (west of roadfork 567). The left flank seems to be west of the creek. The point is north of you, at the house nearest the bridge. You have not seen the main body. The enemy has been firing steadily upon your advance party. His fire, like your own, has been interfered with by the trees along the creek. One man on your left seems to be wounded. You are about in the center of the platoon. A moment later the support opens a vigorous fire. Another moment, and the fire upon your advance party is reduced by a half.

The field in front of you is flat. The brush along the creek is head high, but does not reach the foliage of the trees by 6 feet.

What do you intend to do?

THE FIRST SERGEANT'S SOLUTION

I intend to advance to the creek at once. The platoon being somewhat mixed, I will send forward, first the men on my right, then the men on my left. If cover all the way to the creek is not good, the advance will be made in two "hitches."

DISCUSSION

We have purposely thrown on you the full responsibility for handling the platoon. We think that ordinarily you would receive from the captain some instructions or hints to guide your actions. On the other hand, you will often be called upon to act on your own responsibility without any intimation as to what the captain desires. When this happens, you should comply with the spirit of Pars. 372 and 373, Infantry Drill Regulations.

The attack by our company or battalion will be without result unless we close on the enemy. As soon as the support gets into action, and the effect of its fire is felt by the enemy, your waiting game ceases. From this point you should not hold back unless an advance is impossible.

It is over 200 yards to the creek. There is a 6-foot strip of daylight between the brush and the foliage of the trees. From the road you cannot tell what the effect of this strip will be on your advance. Your first real halt will be at the creek. Any intermediate halt that may be necessary will be made only for the purpose of holding the enemy under fire while the platoon covers long, exposed stretches (if you find any) by rushes, or to save the men from the fatigue of a long, continuous, rapid advance.

We would not recommend an attempt to advance by the road and the two bridges north of you. The men would have to slip to the right, exposed to the enemy's view and fire. Unless the long way around has some special advantage, the short way is the better.

Sergeant Hill, in command of the point, seems to understand that it is necessary for him to watch your right flank. He appears to have taken over the duties of a combat patrol. As long as his action and movements are satisfactory, it will not be necessary to give him any orders.

The preparation, orders, and signals for an advance by rushes will be considered more in detail in another problem.

The next change in the situation will make your platoon a combat patrol. This will be made the subject of the problem which follows.

Fifth Problem

A Combat Patrol

EXPLANATION

"Reconnaissance continues throughout the action. A firing or skirmish line can take care of its front, but its flanks are especially vulnerable to modern firearms. The moral effect of flanking fire is as great as the physical effect. Hence, combat patrols to give warning or covering detachments to give security are indispensable on exposed flanks. This is equally true in attack or defense." (I. D. R. 396).

By a careful reading of the paragraph quoted, you conclude that if the force sent out on the exposed flank is so small that it can only give warning, it is called a combat patrol. If it is large enough to offer resistance, it is called a covering detachment. The distinction in name is unimportant. For convenience, all bodies sent to an exposed flank to warn or resist are called combat patrols unless they are quite large. If a regiment is fighting alone, the colonel may send a company to an exposed flank and call it the right (or left) flank detachment. If a brigade is fighting alone, the same company may be sent to an exposed flank and may be called preferably a combat patrol. In practice, it is partly a matter of relative size, and partly a matter of taste and convenience. The important thing is to know that the detachment, whether it is called a combat patrol or a covering detachment, will resist if it is strong enough, but in every case it will give early warning and full information.

The size of a combat patrol depends upon a great many things that need not be discussed in connection with the present problem. It may consist of only two men. It is conceivable that in some cases one man, favorably located to observe and signal, would make a satisfactory combat patrol.

SITUATION I

This is a continuation of the last situation of the preceding problem.

Your advance party is now on the north side of the creek, 200 yards west of the bridge. The support is on your left, 250 yards away, but moving north towards the woods. Firing has ceased. The enemy has disappeared, evidently having mounted up behind the woods and galloped towards 632. The point is on the bridge. Your former connecting file is with the platoon. As you start to move forward, the battalion adjutant arrives and says to you,

Red cavalry has driven Company E a mile north of Biglerville, but Company E is still fighting. Most of the Red cavalry seems to be between here and Biglerville, probably in position one mile northwest of us. The battalion is going to attack at once in the direction of Biglerville. Take your platoon to the top of that hill (pointing to hill 646) as a combat patrol.

1. What do you think?
2. What do you intend to do?
3. What orders do you give up to the time you reach the vicinity of 553, assuming no change in the situation?

THE FIRST SERGEANT'S SOLUTION

1. Combat patrol on that hill. I may have to fight to get the hill. My left flank is secure enough. As I march to the hill I shall need a patrol in front and another on the right flank. Better keep off the road and be ready to deploy.

2. I intend to march by the right flank to the road; to send the original point forward by the shortest route to the top of the spur 250 yards northeast of roadfork 553, and thence along the crest to hill 646; to send another patrol of three men northeast towards the east base of the spur, and thence to the top of the spur, to a point probably 300 yards northeast of roadfork 553, from which the patrol can observe the country to the east and northeast and at the same time signal to me. Then I intend to restore the organization of the platoon and march on the right of the road and parallel to it.

3. I command,

By the right flank, march,

and march at the head of the column towards the sharp turn in the road.

I signal the point to join me and then give the following order to Sergeant Hill and Corporal Koenig:

Company E is still fighting somewhere north of Biglerville, in that direction (pointing). The enemy will probably put up a fight a mile from here on that high ground (pointing to the northwest) between here and Biglerville. Our battalion will attack at once towards Biglerville. This platoon is the combat patrol on the right flank. We are going to that hill (646). Sergeant Hill, march your point at once to the top of that spur (pointing to the spur northeast of roadfork 553), then along the spur to the top of the hill. Corporal Koenig, take two men and patrol through those woods (pointing to the woods southeast of roadfork 553). Make a loop to the north and west so as to see the country to the northeast and then halt on the top of the spur where you can see the country to the east and northeast and at the same time see me. The platoon will march in the fields along the right of the road.

Then I march to the first house north of the bridge, assemble the platoon, restore its organization, and give the following orders:

The enemy is probably on that high ground and a mile northwest of here. Company E is fighting farther north. Our battalion is going to attack. Our platoon is the combat patrol on the right flank of the battalion. We are going to that hill. Corporal Clark, platoon guide. Towney, fall out and march so as to be able to see me and at the same time see the battalion, if possible, but keep within 100 yards of the platoon. As skirmishers, march. Platoon column, march."

I lead the platoon through the cornfield, marching about 30 yards from the fence and keeping about 150 yards in rear of the point.

DISCUSSION

Our purpose in asking, "What do you think?" is to encourage you to settle clearly in your mind, when time permits, the salient points that will influence your intentions and orders, before taking action and issuing orders.

The enemy is not likely to leave such an excellent observation point as hill 646 without a patrol on it. This is particularly true when the enemy's force consists of cavalry, as in this case. Because of its mobility, cavalry sends patrols longer distances from its main body. Therefore,

you may be obliged to fight for possession of hill 646. It is possible that you may find the hostile force on the hill too strong for you, but this fact, if you find it to be a fact, becomes very important information for our battalion commander. The attack of the battalion, as planned, might then become impracticable. Therefore, your conclusion must be that it is your duty to attack any force that you find near hill 646, in order to drive it out quickly, if possible, or failing in this, then to fight vigorously enough to learn its strength and position.

A march in skirmish line would cause unnecessary fatigue and disorder. Even if such a formation were a justifiable excuse for dispensing with a point, which is doubtful in this case, it would still necessitate the flank patrol. Under the circumstances, it is better to march in a platoon column with proper protection.

All bodies of troops marching in the actual or probable presence of an enemy must protect themselves from surprise. The number and strength of these covering detachments, or patrols, as the case may be, vary according to the strength of the whole force, the imminence and nature of the danger, and the ground. A detachment sent out to cover (protect) a force will generally have its own covering detachments. For example, your platoon is a covering detachment (combat patrol) for the battalion, but you also must have your own covering detachments. Therefore, you have a point and a right flank patrol, not counting Towney, who is merely to keep you in communication with the battalion if possible. Furthermore, Sergeant Hill will probably march with one man in front of him and one man on his right, while he and another man form what might be called the main body of the point.

In view of the short distance to your destination, it would be unwise to march on the road. There is an even chance that you will draw fire from the vicinity of hill 646. By marching in the fields your men can deploy quickly without running into fences. Furthermore, as you approach hill 646, you will naturally want to reach the higher ground east of the road so as to be on fairly even terms with your enemy, if you meet one.

You did not prescribe a distance between the point and the platoon. The reason for this is that the point would take a route somewhat different from your own. It is necessary for Sergeant Hill to reach the top of the spur quickly and march along the crest, in order to see towards the northeast. The platoon, on the other hand, should march under cover of this spur, but close enough to the crest to occupy it in case of necessity. Furthermore, you are now guiding on the point (not *vice versa*, as in the Fourth Problem) and may vary your distance from time to time.

The platoon should be checked up and organization should be restored as often as necessary and possible, but it is best to do so under safe cover, as, for example, the house selected. The house has the probable further advantage of a water supply for your men. However, you would lose time if you attended to this matter first. Hence, you would first send out the necessary patrols, and as they are gaining their distances you would assemble the platoon and prepare for the forward movement.

For reasons of your own you have again sent the platoon guide in command of the point. The senior corporal should be designated as platoon guide for that part of the platoon which remains directly under your command. In this connection, you may be curious to know why the Infantry Drill Regulations give the platoon leader an assistant who is second in command, while the captain has none. When a company deploys, the captain gives his commands, orders, and signals to platoon leaders only. If he passed over these leaders and tried to handle 15 or 16 squads in battle, his control would fail oftener than it would succeed. If he tried to handle every man directly, matters would be still worse; the line is too long and the excitement and noise are too great. A platoon is small enough to permit the observation and control of individuals; hence, all commands, orders, and signals, intended for individuals, or squads, or the platoon as a whole, are given by the platoon leader. Only the general movements and actions of the platoon are indicated by the captain to the platoon leader. This throws on the platoon leader the necessity for watching to the front and rear, and sometimes the flank, and

studying the situation with a view to planning future action. Someone must observe the men in the line in order to preserve control, discipline, and steadiness. The platoon leader cannot do both. The guide, or second in command, is the watchman and disciplinarian. If the company is so small that the captain chooses to handle it as a single platoon (I. D. R. 166), the function of watchman and disciplinarian passes to the lieutenants and first sergeant. There will always be a first sergeant or acting first sergeant available. To follow out the principles explained above, the platoon, whether with the company or acting alone, must always have a platoon guide. In battle or skirmish you will quickly see the advantage of this firm control, an advantage that may not be so apparent in peacetime exercises.

SITUATION II

When you restored the organization of the platoon (that is, re-formed the squads and checked up your men) you found that Schafer, Stone, and Wilson were missing. Schafer was wounded in the first skirmish. Their squad leaders tell you that Stone and Wilson were wounded in the skirmish just ended.

You are now at the head of the platoon column and 150 yards north of roadfork 553. You can see only the chimney of the house on hill 646. The point is about 150 yards north of you and 100 yards east of the road, but is momentarily lost to view. You see a few Blues about 200 yards south of hill 651, but there is no firing in that direction. Five or six rifles open fire from the vicinity of hill 646; a moment later you hear your point open fire.

What do you do?

THE FIRST SERGEANT'S SOLUTION

I command and signal,

As skirmishers, two paces, march,

and continue the advance at a fast walk, preceding the platoon so as to get an early view of the ground around hill 646.

DISCUSSION

You have some yards to go before you reach the secondary ridge which the road crosses about 200 yards north of roadfork 553. When you reach the crest of this ridge you may be fired upon, but more important than this, you will be able to return the fire and start an attack. Skirmish line should therefore be formed before the platoon is exposed.

You have now only 20 men in your skirmish line. At 2 paces interval these men will form a line about 45 yards long. The normal firing line should hold about one man to each yard of front. But this applies to firing lines of larger forces, where there is only a certain amount of front available or usable, and it is necessary to place along that front as many rifles as possible. When we deal with a platoon or less, and sometimes a company or more, there is an advantage in making a line longer and thinner (that is, less than one man per yard). It may sometimes reduce the vulnerability of our line, considered as a target, and permit better cover for individuals. It may enable us to point more rifles on our own target, particularly where the ground is broken, or the enemy has good cover and is shifting a great deal. But when you intentionally make your firing line longer, you must adhere strictly to two principles: First, the line must not be too long for easy control. Second, the line must not be made so long that the end rifles cannot get on your target.

When the platoon is in skirmish line your post is in front during a rush or charge; otherwise, it is in rear of the center, unless you have a reason for going elsewhere. In the present case, you precede the platoon, if only by a few yards, in order to be the first to see over the ridge. In this connection see I. D. R. 369, second section.

SITUATION III

After a short, sharp fire fight, you drove a hostile patrol away from hill 646, and reached the farmyard in skirmish line.* Apparently, two of our companies are in skir-

*In this and following problems, it will be necessary to pass over

mish line, halted astride the road between Gainer and crossroad 632. A moment ago some one near Gainer took your semaphore message reporting progress. The same person signalled,

Enemy in position half mile west of here.

One man of Corporal Koenig's patrol is in sight, halted about 300 yards northeast of roadfork 553. Sergeant Hill's point joined the platoon during the advance, the high corn offering sufficient temporary right flank protection. There has been no firing anywhere since you ceased firing. There seems to be a Red patrol near 647. (Walinski was wounded when the point was first fired upon, but he was able to walk. You sent him to Hirst, alone.)

How do you post the combat patrol?

THE FIRST SERGEANT'S SOLUTION

I place 3 men at the 646 farmhouse or barn, to post themselves high enough to see the 647 ridge, to see the Benders Church ridge beyond the cornfield, to see Corporal Koenig's signalman, and to signal towards Gainer. I send 2 men to the bend in the road 300 yards southwest of crossroad 600. The rest of the platoon marches into the field west of hill 646, concealed by the corn, and advances towards 600 until a line facing 600 is shortened to about 30 yards by the fences along the roads. The corn in front, as far as the fences, is trampled down so as to give firing positions for the platoon to fire upon hill 647 and the fields southwest of it. The platoon then conceals itself by falling back about 5 yards into the standing corn. A man on the left flank is detailed to watch towards the patrol southwest of crossroad 600 and along the road to Benders Church. A man on the right flank is detailed to watch the patrol at hill 646. I remain near the edge of the standing corn so as to observe the 647 ridge and to the northwest and west.

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many important and interesting phases in this manner, in order to avoid a multiplicity of sitations more or less alike. The object of these problems is to present a variety of situations rather than all the situations confronting a particular command. Naturally, company commanders will use the method that best suits their purpose.

DISCUSSION

It is difficult to post a small command with the aid of a map only. A visit to the ground may prove that your solution is by no means the best. A map does not show the minor accidents of ground and cultivation that are most useful to a small force. However, the solution will serve our purpose, which is to show the relation of the combat patrol to the battalion and what the patrol should be prepared to do.

Apparently, the battalion is making careful preparations for its attack. The enemy is very likely along the edge of the cornfield about 600 yards west of crossroad 632. Firing may begin while you are still making the dispositions mentioned in the solution. Eventually, the right flank of the battalion may reach the patch of woods north of crossroad 632. You can see that this flank of the battalion is exposed to attack from the ridge that extends from hill 647 southwest to the cornfield 600 yards west of crossroads 600. A counter-attack from this direction is especially to be provided against in the present case since the enemy's force consists of cavalry. Your task then, is to protect this flank, by defensive action if possible, but by ample warning at all events. This is the most important area to be watched. Other areas that require watching are the ravine between the 647 ridge and the 600—Benders Church road, the Benders Church ridge, and (particularly since the hostile force consists of cavalry) the various roads about three-quarters of a mile east of hill 646.

Your patrol of three men on hill 646 can see the Guernsey—610—Biglerville road, from hill 647, south of Guernsey, as far as the orchard 700 yards southwest of roadfork 610, and much of the intervening ground. This patrol is almost certain to see any large force that may enter the ravine between the two 647 hills. It can see almost a mile along the Benders Church ridge. It can receive and transmit signals from and to Corporal Koenig and the battalion commander. It can also see the 632—626—Biglerville road almost to Biglerville. Corporal Koenig's patrol can see almost a mile to the northeast, east, and southeast. Your patrol of two men, 300 yards west of crossroads 600, is

less important, but is desirable on account of the small area north of the 600—632 road not otherwise visible, and because you may not otherwise maintain connection with the right flank of the battalion firing line. Personally, you can see the ridge from which a counter-attack is most to be feared.

The platoon is posted so as to open fire quickly on the ridge just mentioned. From its present position, it can also stop an advance by way of the ravine southeast of 647 ridge, although the men, in this case, may have to change their firing positions. The platoon is not in position to stop an advance along the Benders Church ridge. It cannot be in two places at the same time without being divided. It is better to place the whole platoon to cover the most probable area of danger, while other areas are closely watched so that the platoon may be shifted in time if need be.

If well posted, the 20 rifles now immediately under your command can stop at least a troop of cavalry, and possibly more, in a mounted or dismounted attack against the flank of the battalion. The firing line position that you selected is 10 or 15 feet higher than the crossroads at 600. Therefore, the cornfield which is west of the crossroads presents little or no obstacle to effective fire towards the ridge. The obstruction due to the houses can only be overcome by posting the men on the ground. The details are too minute to be indicated on the map.

You are not likely to remain long in your present position. A combat patrol must conform in a general way to the movements of the force it protects. Until our battalion approaches the house 300 yards northwest of 632, you cannot improve your present location. It is too early to decide upon your next move. You may get orders on the subject, or the attack may assume an unforeseen course or extension.

There is no present necessity for firing on the Red patrol near 647 ridge. It is enough to report its presence to the battalion commander. Neither is it advisable to drive the patrol off by an attack. A few men might not be able to do so, and the whole platoon has more important work elsewhere.

The dispositions of your platoon are probably not as simple as would be the case in an average combat patrol situation. This is partly due to the cornfield and the conformation of the ground, and partly to the fact that the hostile force consists of cavalry.

SITUATION IV

It turned out that there were very few Reds in the edge of the cornfield 600 yards west of crossroads 632. Before the firing line of the battalion advanced, reconnaissance disclosed the fact that the enemy's main force was concealed in the high corn 600 yards west of crossroads 600, and would probably defend the edge of that field. At least that is what a mounted orderly told you when he arrived and handed you the following message:

GAINER farmhouse
4 Sept. 11-50 P. M.

Sgt. Holmes,
Battalion attacks cornfield west of your hill. Move patrol half mile north to high ground.

Crosby,
Major.

1. What orders do you give?
2. Indicate your route to the new position.

THE FIRST SERGEANT'S SOLUTION

1. To the nearest corporal:

Adams, the platoon is going to that hill (647) by way of its east slope and close to the road. Take three men as point and go to that barn (west side of the road). March so as to observe to the north and west.

To the man on the left flank of the platoon:

Signal "Assemble" to the patrol on your flank.

I write the following on a piece of paper:

Corporal Koenig,
Platoon goes 600 yards north. Move your patrol 600 yards due north to top of ridge. Watch road as before.

Holmes,
1st Sgt.

To the platoon:

By the right flank, march.

To Willis, while the platoon is crossing the road:

Go to that house and find Kelley. Tell him to join me with his patrol. Then go to Corporal Koenig and give him this. Stay with his patrol. Repeat.

2. East across the road; then north in platoon column, marching just far enough down the slope of the 647 ridge to escape observation from the west.

DISCUSSION

You must not expect every message to be exact in its reference to places. Referring to Major Crosby's message, you find that there are two cornfields west of crossroads 600. One of them is just across the road from your position. The major must mean the other one. Also, if you look due north from "your hill" and measure one-half mile by eye, you will not find suitable high ground there. Your common sense, however, tells you that the major has in mind the high ground at 647 ridge. Messages should be as exact as it is possible to make them; but in interpreting a message, allowance must be made for the impossibility of always making them exact.

The only other new point that comes up in this situation is the sending of the message to Corporal Koenig. This message is too long to be given verbally by messenger. If you sent it to Corporal Koenig by semaphore, you would either have to leave the platoon for awhile and go to the farmhouse to send it, or write the message and send it to the farmhouse to be semaphored to Corporal Koenig. You cannot leave the platoon; therefore, you must write the message, no matter how you transmit it. Having written it, it is just as simple and much surer to send it to the corporal by messenger.

You will never know whether your messenger understands what you want him to do unless you make him repeat his instructions. Even then you will not let him go unless or until he repeats these instructions in a manner which convinces you that he understands.

It is better to have Willis remain with the patrol than to have him wandering around looking for the platoon. Later, when you are in signal communication with Corporal Koenig across the ravine, you can recall Willis if it is desirable to do so.

You may be surprised to see two hostile forces moving about so near each other without being warmly engaged. The terrain fully accounts for this condition.

Sixth Problem

A Picket

EXPLANATION

"The outpost is a covering detachment detailed to secure the camp or bivouac against surprise and to prevent an attack upon it before the troops can prepare to resist." (I. D. R. 678.)

When troops are in camp or bivouac in the presence of the enemy, the amount of rest and security that can be given depends upon an outpost arrangement. The number of men actually on their feet on outpost is relatively not great.

A comparison with the advance guard problems will show that the same principle of distribution applies to an outpost.

"Patrols or sentinels must be the first troops which the enemy meets, and each body in rear must have time to prepare for the blow. These bodies cause as much delay as possible without sacrificing themselves, and gradually retire to the line where the outpost is to make its resistance." (I. D. R. 695.)

The bodies of troops nearest the enemy are very small. We find that the various parts of an outpost, as in an advance guard, increase in size as we go back towards the main camp. An advance guard is a moving body and is on one road. An outpost is a stationary body and is divided so that a part of it is on each road that the enemy is likely to use if he marches towards our main camp.

Besides allowing the troops to rest, an outpost attempts to prevent the enemy from observing our camp and, in case of attack, gives warning or resists so that the main body can have time to prepare for whatever may be the proper action under the circumstances. An outpost also reconnoiters to the front for information of the enemy or the ground, or both. Thus, the duties of the outpost are observation, resistance, and reconnaissance.

For convenience, the parts of an outpost are given appropriate names as follows: Reserve, support, outguard (an outguard may be either a picket, a sentry squad, or a cossack post) sentinel post, patrol, detached post. These names, and the purpose of the parts which they designate, should be clearly understood. See I. D. R. 683-697.

Usually, the commander selects a defensive line on which he proposes to fight if the enemy attacks. The supports are ordinarily located at points on this line where roads cross it. These points define what is called the "line of supports." In front of this line are the outguards. Their duties are to observe and reconnoiter so as to give warning. In case of attack they offer what resistance they can, and eventually fall back to the line of supports. In rear of the line of supports is the outpost reserve, conveniently located to re-inforce whichever support is attacked. Behind the outpost reserve is the main camp.

The present problem deals with an outguard which, because of its size and purpose, is called a picket as distinguished from a sentry squad or cossack post.

SITUATION I

(This problem, and the seven problems that follow it, are all based on the same original situation. It is recommended, therefore, that you mark locations carefully with pins and small tags, and preserve your map thus "staked out" until you have reached the end of the Thirteenth Problem.)

Our brigade has been marching northeast from Gettysburg, on the McElheny—Plainview—Heidlersburg road, in the enemy's country. It has been reported that the enemy is several miles to the northeast, and that our brigade will halt south of the Conewago Creek until tomorrow or the day after, to await reinforcements.

The Conewago is reported to be fordable only at the fords shown on the map. It is November 1st, and the corn is in shock.

Our battalion has been the advance guard and is now (2 P. M.) halted as follows:

The reserve (Companies A and B) at crossroads 616, southwest of Plainview. The support (Companies C and D) near the house 400 yards northeast of 616, with its advance party on the ridge 800 yards northeast of 616 as march outpost. Later, Captain Rowen marched our company (A) within 100 yards of the advance party, halted, assembled the noncommissioned officers, and said:

Conewago Creek swings around this ridge, a half mile north and a half mile east of here. The enemy is reported to be in camp on this road four miles northeast of here. Our brigade is going into camp on this road, a mile and a half to the southwest, with our battalion as outpost. Companies C and D will be in reserve at the crossroads where we halted a few minutes ago. Company B, as support No. 2, on that ridge, and about a half mile west of here. This company, as support No. 1, will be in this vicinity, near the road. The exact location of the company will be fixed later. Sergeant Crane, take the Second Platoon down that farm road to the east and place outguard No. 1 to cover the ford where the road crosses the Conewago. Sergeant Holmes, take the First Platoon ahead on this main road and establish outguard No. 2 covering the bridge across the Conewago. Posts.

You are Sergeant Crane, commanding Second Platoon.

1. Where do you place your picket?

2. What further dispositions do you intend to make immediately upon arrival?

SERGEANT CRANE'S SOLUTION

1. I place the picket in the patch of woods 450 yards west of the ford.

2. I place a double sentinel behind a corn shock, selecting one which will enable the sentinels to see the ford, the fields along the fence which runs to the southeast, and the field to the northwest as far as the wooded spur held by outguard No. 2. I send a patrol of three men across the Conewago, by way of the ford, to patrol a half mile beyond the ford and then return. I send another patrol of two men a half mile to the southeast to patrol the woods and, on the return trip, to examine the Conewago for possible fording places. I send another patrol of two men to locate outguard No. 2 and, on the return trip, to examine the Conewago for possible fording places. Along the east edge of the woods, I begin the digging of a fire trench to command the ford, and

send a few men to level whatever corn shocks I find in my proposed field of fire, except the one used by the sentinels.

DISCUSSION

In the Seventh Problem, which deals with the First Platoon as outguard No. 2, we shall consider more in detail the orders and instructions actually given to an outguard and its detachments.

There are several interesting points in connection with the outguard established by the Second Platoon. When you study the Seventh Problem, you will observe that the dispositions of the two outguards are somewhat different. At first glance the two seem to be alike in every detail. Both are of the same size; both are sent out from the same support, and each covers a Conewago crossing and an important approach towards the troops that are to be protected. Still, there is enough contrast between the two outguards to demonstrate the truth of the statement that no two situations are alike, and, therefore, an outguard disposition which fits one case may be wholly wrong, or only partly right, in another.

Until the commander of the support has reconnoitered the sector assigned to him, and particularly the road assigned to your outguard, he is obliged to leave to you the first selection of the position for the outguard and the first dispositions as to sentinels, patrols, etc. As soon as the captain is able to do so, he will visit your outguard, learn what you have done, reconnoiter the vicinity, give you more detailed information as to the location and responsibilities of the various parts of the outpost, *correct your dispositions, if he so desires,* instruct you as to the changes to be made at dark, and tell you the arrangements for messing and ration supply.

Naturally, you hope to arrange the picket so advantageously that the captain will not be induced to order changes. In the present case, you have so obviously the proper place for the main body of the picket that you need not hesitate to entrench at once.

The map indicates that there is no underbrush among the trees in the vicinity of the ford. If it were otherwise,

you would do well to cut out the underbrush so as to have a clear field of fire, at least as far as the island.

Technically, a picket is only an outguard. An outguard ordinarily observes and warns, but does not expect to offer serious resistance. However, when the outguard is so large that we give it the convenient name of picket, and when in addition it finds a favorable position covering an important approach, it should entrench and prepare to offer resistance. Another reason for entrenching, in the present case, is the fact that the support is not between the ford and the outpost reserve. In this respect, the situation differs radically from the one which confronts outguard No. 2.

A single sentinel behind a corn shock might be enough, and would certainly be correct if the outguard were only a sentry squad. But you have an entire platoon, and the sentinel post is an important one, charged with the duty of observing for long distances and in many directions. You might prefer, also, to post a lookout in the immediate vicinity of the picket itself, to keep its eye on the sentinel post. This would surely not be wrong. On the contrary, it would be necessary if you found that the sentinel post was not easily seen by most of the men of the picket.

As soon as an outguard reaches its post, a commander must acquaint himself with the conditions in his vicinity. He can do this by a careful observation of the ground if the area that falls to him is limited, or if an extensive view of his area can be had. Where the area is quite large and the view restricted, as in the present case, and when, in addition, the outguard has enough men, the quickest and surest means is to send out patrols in various important directions. But these patrols should not go far. Your immediate vicinity is your first concern. Later, when you are well established and familiar with the immediate vicinity, you can plan more carefully the changes and patrolling that may be necessary.

If one of your noncommissioned officers has some skill in making a topographic sketch, it would be well to have him start at once a sketch showing the road you are on, the woods that you occupy and the other important features to

the right, left, and front. Ordinarily, the support commander, or some one detailed by him, makes an outpost sketch for the entire support. You can assist materially in the rapid completion of a more accurate sketch if you turn over at least a diagram showing directions and distances to various important features.

SITUATION II

Your three patrols return and report that they have discovered nothing, except as follows: From the bend in the road 400 yards north of the picket there is a foot trail to the east through the woods. The trail crosses the Conewago by a fair ford and appears to follow the wire fence to the road bend 300 yards west-southwest of 544.

What further dispositions, if any, do you intend to make?

SERGEANT CRANE'S SOLUTION

I intend to place a cossack post on the trail mentioned, on the west bank of the Conewago.

DISCUSSION

The cossack post would not be necessary in daytime if your sentinel could see the ford and the trail east of it, but there happens to be a patch of woods 150 yards square (almost two city blocks) which conceals the trail and the ford. The trail towards 544 is also concealed by the trees which fringe the Conewago.

We have here a case of an outguard sending out a minor outguard. This is frequently necessary in the case of a strong picket assigned to watch an important road. If your outguard consisted of a squad only, you would merely report to the support commander the existence of the trail and ford that your patrol discovered. A cossack post would then be sent directly from the support.

SITUATION III

Ten minutes after your arrival at your present position, two mounted orderlies of the regiment turned over to you a telephone connected with Support No. 1 and the

outpost reserve.* Presently the captain arrived. He approved all that you had done. He informed you as follows: If you are driven back, you are authorized to fall back on the reserve. The outpost has been reinforced by a platoon of cavalry, which now forms a detached post where the road crosses the Conewago, 1,500 yards southeast of your picket. The second fence 500 yards south of your picket, and the north edge of woods from the end of the same fence to the Conewago, mark the right of the sector of our support (Company A). The support will send supper to the picket at 5-30 P. M., and breakfast at an hour to be announced later. The changes for the night, as far as they relate to your picket, will be as follows: The picket will move forward to the water's edge at the ford. Hourly patrols, on the even hour, to the cavalry detached post and to outguard No. 2. No. 2 will be at the bridge during the night. The opposite side of the Conewago also will be patrolled. Night signal:

Twenty-three, forty-one.

What preparations do you make, during daylight, to carry out the captain's order for night changes?

SERGEANT CRANE'S SOLUTION

I cross the ford with two corporals, in patrol formation, leaving the platoon guide in charge of the picket. Having decided to place a sentry squad at the east end of the ford, I point out its location to the corporal of the squad selected. To both corporals I point out the houses 500 yards east and 500 yards north, as guides for night patrolling. Then we return to the picket and I prepare a roster as follows:

Cossack post (already established), 1 corporal and 3 privates.

One squad for sentry squad.

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*Although at present infantry regiments have no telephone equipment, it is inconceivable that we shall be without it in war. In fact, it is understood that a proper equipment is being designed.

A guard for the bivouac of the picket; three reliefs of one private each, with a corporal in charge; one hour on, two hours off.

For patrolling the roads 300 yards beyond the houses mentioned above (every hour, day and night), two reliefs of four men each (one squad; the corporal and No. 2 as leaders).

For a visiting patrol to the cavalry detached post, two reliefs of two privates each.

For a visiting patrol to outguard No. 2, two reliefs of two privates each.

The leaders of these patrols are then sent in pairs to examine their routes by daylight.

The patrol to the cavalry detached post is given the following route: From the west end of the ford (proposed bivouac) go southwest along the fence 200 yards to the fence corner; thence 1,000 yards to the southeast along the fence to the fence corner; thence east to the road; thence to the cavalry post; thence return along the west bank of the Conewago.

The patrol to outguard No. 2 is given the following route: Follow the farm road to the bend 600 yards northwest of the ford; thence east to the cossack post; thence along the Conewago to outguard No. 2; thence return by the same route to the cossack post; thence along the Conewago to the ford.

I inform all members of the patrol that the night signal is twenty-three, forty-one.

DISCUSSION

It is merely a coincidence that your roster utilizes exactly every corporal and private in the platoon. If your first draft of a roster did not require the services of every man in the platoon, you would not, on that account, increase the size of any of the groups. If your first draft summed up more than the total number of corporals and privates available, you would have to reduce some of the groups if possible; otherwise, inform the captain. The

platoon guide could be put in charge of the bivouac guard, thus saving one corporal. The sentry squad could spare one private and still have three reliefs of double sentinels. The patrols to the east side of the Conewago could be reduced to three men each, etc.

Although every man is on your roster for some duty during the night, you will always have twenty-two men, including yourself, in the bivouac of the picket if you send the four-man patrol out when the visiting patrols return. If all patrols are out at the same time, there will still be eighteen men in your bivouac.

At night, your trench is of no value. The ford is a defile. To oppose an enemy it is necessary to place yourself at the defile. The captain has wisely decided that you should be at the west end of the defile. Very likely he also would have ordered the sending of a sentry squad to the east end, but for our own reasons we purposely caused him to omit this. It is nearly 300 yards to the east end of the ford. This is too far for a double sentinel post sent out directly from the picket. There are two alternatives: Either send sentinels directly from the picket to the island, or send a sentry squad to the east bank of the Conewago. If it were not for the dense woods which cover the island and line the west bank of the Conewago, a double sentinel post on the island, sent from the picket, would probably serve our purpose.

If the other demands on the platoon were not so great, it would be well to change the cossack post to a sentry squad during the night.

The patrol to the east side of the Conewago should make its rounds in daytime as well as at night, on account of the restricted view of your sentinels. The last patrol before dark should carefully cut all telephone wires so as to isolate the houses in your front. You are in the enemy's country, and by cutting these wires before you make your changes for the night, you may prevent detailed information from reaching the enemy, or at least delay the transmission of it.

A cossack post or sentry squad is not strong enough to send out patrols, except for the necessary examination of

its surroundings when it first reaches its position. A picket, on the other hand, is frequently a small support and, if strong enough, must take over reconnaissance to adjoining parts of the outpost. Such patrolling is very easy in daytime, and is frequently unnecessary, as in this case. At night a patrol can easily get lost even if it has covered its route by daylight. This possibility generally can be avoided by fixing routes that are easily followed at night. Fences, roads, streams, and clearly defined ridges, or edges of woods, are very useful guides and should be used whenever possible.

In daytime, your sentinels, together with the sentinels of the cavalry detached post and outguard No. 2, can see all the ground which you propose to cover with visiting patrols during the night. We hardly ever patrol ground that can be seen by sentinels. At night, however, the intervening ground must be examined from time to time. We must keep in touch with adjoining posts and exchange information, even if it amounts to no more than an assurance that everything is quiet. Your cossack post is visited twice each hour. Your four-man patrol passes through the sentry squad twice each hour. Even though you have telephone connection, a patrol from the support will probably visit you occasionally.

The reason for starting your visiting patrols on the even hour will be apparent when you study the Seventh Problem.

If you study the final arrangements along the entire front of our support, you will realize how difficult it would be for the enemy to pierce our line unobserved *with a sufficient force to be dangerous.* It is a mistake to suppose that an outpost is not good merely because a patrol can penetrate it. A hostile patrol is not dangerous except in the infrequent case where it is imperatively necessary to prevent the enemy from getting any information whatever. Such cases are rare.

"In posting his command the support commander must seek to cover his sector in such manner that the enemy can not reach, in dangerous numbers and unobserved, the position of the support or pass by it within the sector intrusted

to the support. On the other hand, he must economize men on observation and patrol duty, for these duties are unusually fatiguing. He must practice the greatest economy of men consistent with the requirements of practical security." (I. D. R. 704.)

No doubt you understand why the captain authorized you to fall back on the reserve in case you are attacked and forced to retire. The attack might come from the front, supported by rifle fire from troops posted along the east bank of the Conewago, north of the ford.

Whenever possible, a noncommissioned officer should be awake and on the alert at all hours of the night. Patrols must be sent periodically, and the bivouac guard must be relieved hourly. A satisfactory arrangement in the present case would be as follows: You remain on this duty until 9 P. M.; the platoon guide until 1 A. M.; and the corporal in charge of the guard from 1 A. M. until a half hour before daylight, at which time the entire picket should be awakened.

The method of night signalling prescribed by the support commander will not be found in any of our regulations. It would not be wise to have a uniform system throughout the army. It would be better if every regiment practiced two or three systems and changed them from time to time. In the present case, it is intended that the signals shall be given by tapping the butt of the rifle with the knuckles, or a stick or stone, depending upon the stillness of the night. The one who calls, strikes the butt of his rifle twice, then after a short pause, he strikes it three times; thus, tap, tap—tap, tap, tap, making the signal twenty-three. If he hears an answering signal "forty-one" he is reasonably sure that he can move in the direction of the answer and meet a member of the outpost. Or, any one hearing the signal "twenty-three" will signal back "forty-one," and be reasonably sure that whoever approaches is a friend. Such signals are particularly useful to night patrols approaching sentinels or outguards. On a still night a tap on the rifle butt can be heard a considerable distance and readily attracts attention. We give it as one of many systems that can be devised, but we should by no means favor the uniform use of this particular system.

Seventh Problem

Another Picket

SITUATION I

The situation is the same as Situation I, Sixth Problem, to include the support commander's orders.

You are First Sergeant Holmes, commanding First Platoon.

What do you do, up to the time you leave the support?

THE FIRST SERGEANT'S SOLUTION

I signal,

Attention to orders,

and call out:

First Platoon, we are going out this road to establish an outguard. Corporal Adams, take three men and precede us by 200 yards. March out.

When the point has gained its distance, I signal,

Right by twos, march. Column of files on each side of road.

DISCUSSION

In connection with the present problem it is our purpose to show the successive steps by which an outpost is established. On a map, it is simple enough to indicate with pins a complete outpost disposition, but in the field we are likely to fumble around a great deal before the outpost is finally established. At the end of a march, men are tired and irritated, and it is a sign of good leadership if the troops detailed for outpost duty go smoothly and promptly to their proper places, thus getting the men off their feet and relieved of their equipment as soon as possible.

You note that the companies of the advance guard reserve (Companies A and B) are to constitute the outpost

supports, while the advance guard support (Companies C and D) retires to 616 and becomes the outpost reserve. The hardest work on the march falls naturally to the advance guard support. When Major Crosby was ordered to establish the outpost of the brigade, he did not waste any time in a preliminary reconnaissance of the outpost line. On the contrary, he immediately sent out Companies A and B, each on a road towards the enemy, and left the completion of the job to the company commanders and subsequent inspection by himself. Thus, in a very few minutes Companies C and D will be in bivouac.

For the same reasons, Captain Rowen halted Company A near the Plainview roadfork and, without wasting time or unnecessary words, sent a picket out on each road, leaving the details as to exact location, sentinels, patrols, etc., to the picket commanders and subsequent inspection by himself.

To conform to this principle, you marched off with your command as soon as possible. For the present, it is not necessary that your men should know much about their future duties. Whatever you may have to say to them can be said better when they reach the place where they are going to work.

"The *supports* march to their posts, using the necessary covering detachments when in advance of the march outpost." (I. D. R. 703.)

"Each *outguard* is marched by its commander to its assigned station, and, especially in the case of a picket, is covered by the necessary patrolling to prevent surprise." (I. D. R. 706.)

Captain Rowen did not place a point in front of the company because he was still behind the march outpost. But in a minute or two you will pass the march outpost and will march towards the enemy, and through country that has not yet been reconnoitered.

SITUATION II

No change. Corporal Adams has taken Willis, Bush and Schmidt with him.

1. Where do you intend to post the picket and its sentinel posts?

2. What orders or instructions do you give on arrival at the place selected, and before the captain arrives to inspect?

THE FIRST SERGEANT'S SOLUTION

1. I intend to place the picket near the edge of the woods on the right hand side of the road, about 200 yards southwest of the nearest bridge, with a sentinel posted so as to observe to the east and along the road to the northeast. I intend to place a cossack post on the island between the two bridges. Meantime, Corporal Adams will patrol through the woods to the west from the first bridge, and then south and return to the picket.

2. Upon arriving in the road opposite the point selected for the outguard, I give the command:

Follow me,

climb through the fence, and find cover for the outguard, as near as possible to the road and the northeast edge of the woods. Here I re-form the outguard in column of squads, and give the following orders:

The enemy is supposed to be in camp several miles northeast of here, on this road. The village where we left the company is called Plainview. That stream is called the Conewago. This is the Harrisburg Road. A mile and a half northeast of here, on this road, is the town of Heidlersburg. Our brigade will camp on this road about a mile and a half to the southwest, with our battalion as outpost. Companies C and D will be the reserve, at the crossroads where we left the major. Company B will be support No. 2 on another road about a half mile from here, in that direction (pointing west). Our company will be support No. 1 on the road about where we left the company. Sergeant Crane, with outguard No. 1, a picket of one platoon, is on a trail south of here. We shall locate him later. We are outguard No. 2. Later we will locate Company B on our left. Bring to me every person who attempts to cross our outpost line in either direction, or who is picked up by patrols, except members of our company, patrols from Company B, and officers whom you are sure you know. No fires. Pieces will not be stacked. Equipment may be removed, except belts and bayonets. Hook your bayonet scabbards to your belts. Miller, come with me.

I take Miller to the point selected (near the fence along the road) for the picket sentinel, and say to him:

This is your post. You can see up and down the road and to the

east; also, for some distance into those woods (pointing north and west). Be particularly careful to observe the road to the northeast and the country to the east.

I then step into the road, get Corporal Adams' attention and semaphore him:

Patrol 500 yards west along the creek and return here through woods.

Then I return to the outguard.

Towney, take Bennett with you and patrol south until you find a trail. Follow the trail towards the Conewago until you find outguard No. 1. Locate it carefully so that you can point out its position to me. On the return trip, examine the Conewago as far as the bridge for possible crossings. Repeat.

I satisfy myself that Towney understands.

Corporal Nelson, take three men of your squad and follow me. Sergeant Hill, while I am gone, locate the trace of a fire trench covering the bridge. Remainder of platoon fall out.

I lead Corporal Nelson and his men to the bridges. After an examination, I order him as follows:

Place your cossack post here (off the road, near the south end of the second bridge). Place your sentinel about here (indicating a covered position at the edge of the road near the bridge), where he can see the roads across the creek and at the same time be seen by the picket sentinel. Send two men at once to cut all the telephone and telegraph wires at those crossroads (502) and any that leads to those houses (200 yards east). Also bring in the occupants of the houses.

Upon my return to the picket, I send Butler on patrol with the following instructions:

Take two men of your squad for a patrol. Go first to Corporal Nelson's cossack post at the second bridge. North of the bridge there are some woods, probably 50 acres. Patrol the woods thoroughly and return here in one hour. Repeat.

Then I examine the trace selected by Sergeant Hill, and, having adopted or modified it, as the case may be, I put the men of the picket at work entrenching.

DISCUSSION

The position selected for the picket has a clear field of fire to the first bridge.

The reasons for entrenching are about the same as those given in the Sixth Problem. In your case, however,

the support is in rear of you and not on your flank. But the support probably will not have a good field of fire in the woods on the hill. Your picket may be called upon to offer stubborn resistance. We think you will find that in almost every case of a strong picket on a main road, entrenching is either necessary or very desirable for some reason or other.

There is no underbrush among the trees on our side of the Conewago. Whether it would be worth while to clear out the brush on the island is a matter that cannot be decided by reference to the map.

The duties of the sentinel at your picket are more important than in the usual case. Ordinarily, a picket sentinel has little to do except to watch the immediate vicinity of the picket and to maintain visual communication with such parts of the outpost as can be seen. Your sentinel, however, must also watch the road to the northeast and the country to the east, on account of the fact that the cossack post is in a less favorable position to do so. The cossack post can see the road only as far as the ridge 600 yards northeast of the island. The picket sentinel can see the ridge 1,000 yards beyond the island; also, part of the road 1,200 yards east of the island, unless the trees that fringe the Conewago are denser than is shown on the map.

There are two reasons for placing a cossack post on the island at the south end of the second bridge. First, the roads along the east bank of the Conewago could not otherwise be observed. Second, we must prevent Red patrols from destroying the bridges by explosives or otherwise. It would not answer our purpose to send a sentinel from the picket. The distance is too great (see I. D. R. 692) and four rifles may be none too many to prevent a swift attempt to destroy either or both of the bridges.

If the cossack post were placed at the first bridge, it could not see the roads on the east bank of the Conewago, and it might not discover, until too late, attempts against the second bridge.

You may prefer to place a sentry squad, instead of a cossack post, at the bridge; that would certainly not be wrong.

After reading I. D. R. 706, your first impression might be that a roster should be prepared at once. As a matter of fact, you would not make up your roster until the support commander had made his inspection. Until then, you will not have complete information as to what the picket must do, and whatever dispositions you have made may not, in every detail, meet with the approval of the captain. When you finally make a roster, it should be based as nearly as practicable on the duties already performed by members of the platoon.

We recommend that you study carefully the general instructions given the platoon (page 91). You will note the following:

1. Information as to the direction of the enemy.
2. Information as to local geography.
3. Information as to other outpost units and the main camp.
4. Orders for the disposition of strangers met.
5. Orders for preparedness for action.

Naturally, the first three subjects (information) will be different each time you are on outpost. The last two (orders) are practically alike in every outguard, but you should not, on that account, omit them on the assumption that your men understand. When giving general instructions, remember the outline: Enemy, Geography, Outpost and Camp, Strangers, Preparedness.

You may have to repeat the information several times. Be sure that the men understand.

SITUATION III

The picket has been equipped with telephone connection to the support and to the reserve. The captain arrived and informed you as follows: Your dispositions are satisfactory. The outpost has been reinforced by a platoon of cavalry, which now forms a detached post where the road crosses the Conewago, a mile and a half below your cossack post. The west edge of the woods that Corporal Adams patrolled is a clearly defined line, and marks the left of the sector of our support (a line drawn from the letter "l" in "Plainview" to the center of the orchard east

of Hershey Mill passes along the edge of woods referred to). Support No. 2 is near the farmhouse midway between 616 and Hershey Mill. It has a picket on the road 500 yards south of Hershey Mill. This picket has a cossack post near Hershey Mill, where a ford and trail have been found. Our support will send supper to the picket at 5-30 P. M., and breakfast at an hour to be announced later. The changes for the night, as far as they relate to your picket, will be as follows: The picket will move forward to the first bridge. Both bridges will be barricaded. You will send hourly patrols, on the half hour, to the nearest outguards on your right and left. The opposite side of the Conewago also will be patrolled. Night signal:

Twenty-three, forty-one.

1. What are your plans with reference to barricading the bridges?

2. Prepare your roster.

THE FIRST SERGEANT'S SOLUTION

1. While there is still daylight, I shall gather material for the barricades (planks, poles, rails, wire, etc.) and place part of the same in the woods west of the first bridge, and another part in the woods near the cossack post. When the picket moves to the bridge at dark a barricade will be built at the south end of the first bridge and another at the north end of the second bridge, an opening being left in each barricade, only wide enough to permit horsemen to pass through singly. On each bridge part of the planking will be removed and piled nearby. The gap will be bridged for men on foot.

2. Cossack post (sentry squad at night):

Corporal Nelson's squad.

Patrol across Conewago (2 reliefs, 4 men each):

First relief:

Butler, Peterson, Pickett, Carter.

Second relief:

Koenig, Quinn, Morgan, Walinski.

Visiting patrol, south (2 reliefs, 2 men each):

First relief:

Towney, Willis.

Second relief:
Kelley, Miller.

Visiting patrol, west (2 reliefs, 2 men each):

First relief:
Adams, bush.

Second relief:
Bennett, Schmidt.

Picket guard (3 reliefs, 1 man each, and 1 in charge):
Clark, Ames (1), Hagen (2), Stone (3).

Reserve:
Hill, Brown, Pine, McGowan, Schafer.

DISCUSSION

To avoid repetition, we have omitted matters that were brought out in the Sixth Problem.

The barricades will have no particular value in daytime. If you constructed them at once, your working party might be observed by hostile patrols or inhabitants at a considerable distance, and you would thus unnecessarily give information as to your location or plans. At night an attack will generally be a rush with little or no warning. Your fire will not be effective beyond a few yards on account of the inability to see. Whether a rush attack is made by cavalry, mounted, or by infantry, it would be seriously checked by the two barricades and gaps, and thus give you time to arouse and form the picket.

On each bridge the planking should be removed to form a ten or twelve-foot gap. Two or three of the planks should be placed lengthwise across the gap and near the truss, for the use of members of the outpost. If Corporal Nelson's squad is driven back, the last man to cross on these planks should kick them into the creek. The other planks should be piled near the south end of the gap so that the gap can be covered quickly if it becomes necessary for mounted officers or men to use the bridge. If our enemy knows that we are in the habit of taking precautions such as yours, we need have little fear of rush attacks across bridges at night.

The cavalry platoon southeast of Plainview will probably furnish all the patrols to be sent towards, or beyond, Heidlersburg. Whenever possible, a small cavalry force is added to an outpost for distant reconnaissance. In such case, the infantry is rarely called upon to patrol very far beyond its farthest sentinels. Your periodical patrols across the Conewago might be given a route as follows: From crossroads 502, go southeast 600 yards to the bend in the road, then by way of crossroads 502 to the crest of the ridge 500 yards northeast of the crossroads, then by way of crossroads 502 to the road bend 600 yards north of the crossroad, then return to the picket.

Your visiting patrols will have shorter routes than Sergeant Crane's (Sixth Problem). The patrol to the south need go only far enough to gain contact with outguard No. 1; that is, to the cossack post of outguard No. 1, which you will find, later, on the banks of the Conewago, 600 yards southeast of your picket. Your patrol to the west need go only as far as the cossack post 500 yards east-southeast of Hershey Mill.

Captain Rowen has ordered Sergeant Crane's visiting patrols to leave on the even hour, and yours to leave on the half hour. His object was to have almost continuous patrolling. Perhaps he will make an arrangement with the commanding officer of Company B, whereby the patrols which visit you from the picket of support No. 2 will leave on the even hour, thus dovetailing with your patrol in that direction.

In the second situation, when you sent Corporal Adams to reconnoiter the creek and woods west of the bridge, you naturally selected men from his squad to make the first patrol towards outguard No. 1. Therefore, this squad is used for visiting patrols.

You placed Miller on post as picket sentinel when the picket arrived in its position, but when you finally make out your roster you will find it better to relieve Miller at once, so that when Corporal Clark takes over the picket guard he will have under him men of his own squad. Four men of Corporal Koenig's squad are now across the Conewago and presumably familiarizing themselves with the

nearby roads and woods. Since the two reliefs of this patrol require eight men, you naturally assigned Corporal Koenig's squad, making the corporal and the No. 2 man (Butler) the patrol leaders.

You may be called upon for extra patrolling, or may need men for miscellaneous purposes. It is well therefore to write down the names of all men not assigned to regular duties in order that you may see at a glance what men are available without disarranging your roster. In the Sixth Problem there were no unassigned men. If Sergeant Crane required any for special use he would be obliged to make a temporary readjustment of his roster.

You might be tempted to place Sergeant Hill in command at the second bridge when the post is increased for the night to a sentry squad. Your decision will depend very largely upon your confidence in Corporal Nelson. The post is not very far from the picket, and if Corporal Nelson is a reliable man, it should not be necessary to place a sergeant over him. If, for good reasons, you decide to place a sergeant in command of an important sentry squad, and if you are, at the same time, rather short of men, you could retain the corporal and one private with the picket. Ordinarily, you will get better results if you arrange your roster with a view to keeping squads or half squads together.

SITUATION IV

No change.

How do you intend to post Corporal Nelson's sentry squad after dark?

THE FIRST SERGEANT'S SOLUTION

I intend that the squad shall be concealed on the second bridge, behind the barricade and gap, with a double sentinel in a suitable position at the 502 crossroads.

DISCUSSION

The two men actually on observation (a double sentinel) should be concealed at the 502 crossroads in order to give suitable warning of the approach of any hostile force on

the converging roads. The distance from the bivouac of the picket to the 502 crossroads is about 200 yards. This distance is too great to permit the sending of sentinels directly from the picket. Sentinels should be conveniently near their reliefs. This is only another way of saying that Corporal Nelson's squad should be conveniently near the sentinels. A suitable post for the sentinels is the important thing. In the present case, the sentry squad, if it remains quietly behind the barricade, will not be seen or attract attention at night. In case of attack, Corporal Nelson should have little difficulty in falling back on the picket, without interfering with the efforts of the picket to repel the enemy.

SITUATION V

It is 8 P. M. All parts of the outpost have taken up their night positions.

Stake out on the map, with pins, the following bodies of troops:

(a) The brigade, in camp between 561 and D. Wirt.

(b) Companies C and D of our battalion, at 616.

(c) Company A, on the ridge between your picket and Plainview.

(d) Company B, on the road midway between 616 and Hershey Mill.

(e) A platoon of cavalry, at the Conewago crossing 1½ miles southeast of Plainview; sent out by Major Crosby from (b).

(f) One squad in observation 1 mile east of 616, on the bank of Conewago Creek, at the east end of the ford; sent out by (g).

(g) Second Platoon (Sergeant Crane), Company A, on the bank of the Conewago, at the west end of the ford mentioned in (f); sent out by (c).

(h) A half squad in observation on the west bank of the Conewago, about halfway between (g) and (j); sent out by (g).

(i) Corporal Nelson's squad, near 502.

(j) Your picket, in its night position, south end of first bridge.

(k) A half squad in observation on the south bank of the Conewago, 500 yards east of Hershey Mill; sent out by (l).

(l) A platoon of Company B, at the Hershey Mill roadfork; sent out by (d).

(m) A squad in observation at the bridge 50 yards north of Hershey Mill; sent out by (l).

(n) A squad in observation at the bend in the road, 500 yards southwest of Hershey Mill; sent out directly from (d).

(o) A platoon of infantry, on the road somewhere between hill 712 and Bridge S. H.; sent out by the brigade commander, and not under Major Crosby's orders.

Referring to the various situations in the Sixth and Seventh Problems for further details if necessary, give the correct names and numbering of the various bodies of troops enumerated above.

THE FIRST SERGEANT'S SOLUTION

(a) Main body.
(b) Outpost reserve.
(c) Support No. 1.
(d) Support No. 2.
(e) Detached post.
(f) Sentinel post No. 1, outguard No. 1, support No. 1 (a sentry squad).
(g) Outguard No. 1, support No. 1 (a picket).
(h) Sentinel post No. 2, outguard No. 1, support No. 1 (a cossack post).
(i) Sentinel post, outguard No. 2, support No. 1 (a sentry squad).
(j) Outguard No. 2, support No. 1 (a picket).
(k) Sentinel post No. 1, outguard No. 1, support No. 2 (a cossack post).
(l) Outguard No. 1, support No. 2 (a picket).
(m) Sentinel post No. 2, outguard No. 1, support No. 2 (a sentry squad).
(n) Outguard No. 2, support No. 2 (a sentry squad).
(o) Detached post.

DISCUSSION

I. D. R. 685, 687, and 693 govern the numbering of the supports, outguards, and sentinel posts.

(C) and (d) form the line of supports; (g), (j), (l), and (n) form the line of outguards, sometimes called the line of observation. The latter term, however, is not strictly correct, since three of the outguards have sent out squads, or half squads, to form the real observation groups. (F), (h), (i), (k), and (m) would be called outguards if they had been sent out directly from a support, but in the present case, they are merely sentinel posts, and differ from the other kind of sentinel posts only in that the reliefs off duty are resting near the sentinel position, and not at the position of the outguard. If your picket had a double sentinel in the woods 50 or 75 yards north of your bivouac, to watch an important trail, that sentinel position would be called sentinel post No. 2, outguard No. 2, support No. 1. The only difference between it and Corporal Nelson's post would be that the reliefs for the former remain with the outguard, whereas, on account of distance, the reliefs for Corporal Nelson's post are detached from the outguard and remain near the sentinel post. Also, in this case, Corporal Nelson's post would be numbered (No. 1). If an outguard has only one sentinel post, it need not be numbered.

You will observe that neither size nor location will determine the correct name of the outpost parts. The determining factor is the relation of the unit to the line of outguards and to the line of supports; (n) is no larger than (f), (i), or (m), but it is called an outguard, nevertheless, because, in its allotted front, it provides the sentinels for observation, and is the only body of troops between the enemy and support No. 2. It is one of the units in the line of outguards.

In spite of many efforts to simplify the nomenclature and numbering of the outpost parts, the matter still remains complicated, as you have seen. The reason for this is that we cannot make an outpost fit a diagram. It must fit the terrain, and the conditions with respect to the enemy and our own troops.

A noncommissioned officer must familiarize himself with the various names, and what they and the numbering system signify, because one of the duties of a noncommissioned officer is to explain to his outguard, or sentinel post, or patrol, how the outpost lies with respect to the ground on which his own men are to operate.

While your pins are still in place on the map, and the whole situation with reference to the main body and the outpost is fresh in your mind, we advise you to note carefully the position of the detached post between hill 712 and Bridge S. H., and the relation of that post to the rest of the brigade. The Eleventh Problem will deal with that post.

SITUATION VI

The preceding situation was purposely placed out of its proper sequence, as to time of day, in order to give you a clearer picture of the whole outpost.

It is now 3-20 P. M. The first patrols that you sent out have returned, and your roster is ready. The Conewago appears to be unfordable along your front.

What orders do you give to Towney and Kelley? (See roster.)

THE FIRST SERGEANT'S SOLUTION

I give orders as follows:

You two men are leaders of the visiting patrol to the south. Towney and Willis, first relief. Kelley and Miller, second relief. I will show you the route (I point it out while we stand at the southeast end of the trench). Tonight our picket will be at that bridge. Your patrol will leave the bridge, go south along the bank of the Conewago a short half mile, to a cossack post called sentinel post No. 2, outguard No. 1 of our support; then along the Conewago until you find that fence (the one nearest the trench); then along the fence about to this trench; then along the road to the picket. Towney, repeat that.

I cause each of the men to repeat these instructions until I am satisfied that they understand, then add:

Now, Towney, take Kelley with you to the bridge and go over the route.

DISCUSSION

We have already said that your visiting patrol needs to go only as far as the cossack post; that makes contact

with the next outguard. It would not be wrong to have the patrol merely go back and forth along the creek, but we prefer the route given in the solution because it is short, and easy to follow, and covers more ground. The watching of the front along the Conewago does not demand extreme vigilance on your part. It is not fordable between the bridge and the cossack post; but, even so, a Red patrol, of the kind we shall study in the Eleventh Problem, may be lurking in *rear* of our picket.

Even in deciding a question apparently so trivial as whether the patrol shall go clockwise or contra-clockwise, there is frequently a chance to display judgment. There are three reasons for sending the patrol clockwise; that is, to leave by the Conewago and return by the road. First, a patrol returning by the road is less likely to compel a challenge from the picket sentinel, or to alarm him. Second, the fence seems to end in the woods; it is easier to find the road from the fence than to find the fence from the road. Third, if, during the night, a Red patrol gains the rear of our picket (not as probable a situation in the present case as in some other), its attention will be directed chiefly towards the picket, and, therefore, it will be less watchful towards the southwest than towards the northeast.

SITUATION VII

At 3-30 P. M. you receive from Captain Rowen a written message as follows:

> Send patrol at once to see if Heidlersburg is occupied by the enemy. A cavalry patrol from the cavalry detached post is going out on the side roads east of Heidlersburg, for the same purpose.

What do you do?

THE FIRST SERGEANT'S SOLUTION

I give the following orders to Sergeant Hill:

> Sergeant Hill, take Brown and McGowan with you on patrol. You are to go to Heidlersburg to see if the town is occupied by the enemy. I have no map to give you, but Heidlersburg is on that main road, and a mile and a half northeast of here. Go out by way of our sentinel post at the bridge. North of the sentinel post there is a large area of woods. Go into those woods, and then use the wooded

ravines west of the main road, guiding roughly by the main road. You remember the last information we had was to the effect that the enemy is four miles northeast of here, on the Harrisburg Road, the same road that Heidlersburg is on. You know, too, that while you are out you may meet up with Corporal Koenig's or Butler's patrol, somewhere north of our sentinel post. I know of no other Blue patrol or troops that you are likely to meet, but the cavalry detached post. southeast of here, is sending out a patrol on the side roads east of Heidlersburg. Come back when you learn that Heidlersburg is not occupied; or when you find that the Reds, if there are any around Heidlersburg, are halted for the night, or are on the march. You have field glasses* and a compass. Have you a notebook and pencil? A watch? Here are some field message blanks. Repeat your instructions.

When I am certain that Sergeant Hill understands, I tell him to go ahead, but I watch his preparations and his departure.

DISCUSSION

The conduct of this patrol is the subject of the Ninth Problem.

It would have been more consistent, probably, if Captain Rowen had sent the patrol directly from the support. Patrols of this character are usually sent from the support unless the picket has more men than it requires for sentinels, sentinel posts, and local patrol duty. In any event, it is well to know how to send out a reconnoitering patrol of the kind ordered by the captain.

"The commander must have clearly in mind the purpose for which the patrol is to be used in order that he may determine its proper strength, select its leader, and give the latter proper instructions." (I. D. R. 606.)

"If the purpose is to gain information only, a small patrol is better than a large one. The former conceals itself more readily and moves less conspicuously. * * *

"If messages are to be sent back, the patrol must be strong enough to furnish the proper number of messengers without reducing the patrol to less than two men. If hostile patrols are likely to be met and must be driven off, the patrol must be strong.

"In friendly territory, a weaker patrol may be used

*The remark concerning telephone equipment (footnote, page 84) applies equally to the issue of field glasses to sergeants.

than would be used for the corresponding purpose in hostile territory." (I. D. R. 607.)

If Sergeant Hill finds Heidlersburg occupied, but finds also that conditions are such that he ought to remain for a while in observation, he will, very likely, send back a message. It is not likely that he will be obliged to send back two messages. He can bring back in person the second important item of information, if there is a second item, and we have no reason to suspect that his patrol will make more than two important discoveries. The smallest number of men that we would consider for this patrol is, therefore, three.

Sergeant Hill's patrol is not of the kind that is justified in fighting in order to get forward; therefore, it need not be made strong in order to give it fighting strength. Although we are in hostile territory, the ground over which the patrol will probably pass is quite free from houses and appears to offer good cover. Hence, there would appear to be no urgent necessity for making the patrol stronger. In spite of these arguments against increasing the size of the patrol, we would, on general principles, make a little allowance and favor a patrol of four men if the roster of the platoon had not used up so many men. If the patrol had been sent from the support, we would favor four men; three is the irreducible minimum, and possibly too few.

A patrol such as the one you are now sending out is the most important and the hardest to lead of any that falls to infantry, except, perhaps, the kind you will meet in the Thirteenth Problem. The necessity for giving complete instructions must be apparent. You will do well, therefore, to study carefully I. D. R. 608 and 609 while this situation is fresh in your mind. Assuming that you will do so, a discussion of the detailed instructions given to Sergeant Hill is unnecessary.

SITUATION VIII

For the purpose of the present situation we shall assume that you are Sergeant Hill, the platoon guide.

It is after midnight, and you are awake and on watch at the picket. First Sergeant Holmes and the commander of

the picket guard are asleep. At 12-40 A. M. you hear four shots, apparently fired by Corporal Nelson's sentinel post at crossroads 502. You awaken Sergeant Holmes and inform him of the occurrence. He listens a few minutes, but all is quiet. He then tells you to take Schafer with you and investigate. Going forward with Schafer, you find Corporal Nelson with his sentinels, and you are informed as follows: There is a patrol in front at present. The sentinels saw moving figures in the edge of the road 75 yards to the southeast. One of the sentinels signalled *twenty-three*, but there was no response. He then called, "Halt, who is there?" but still there was no response. Each sentinel then fired two shots. Then they heard a scampering, and the figures disappeared.

What do you intend to do?

SERGEANT HILL'S SOLUTION

I intend to take with me Schafer and one of Corporal Nelson's men and go east into the cornfield; then south very carefully, just close enough to the road to see what is on it, exercising great caution when I pass the farm buildings. When I have gone south about 400 yards. I intend to cross the road and return by way of the strip of land between the road and the Conewago.

SITUATION IX

Just before you reach the first house, a slight noise on the road attracts your attention. Approaching very carefully, you discern the outline of several cows. On arriving in the road you find there are three of them.

What do you intend to do?

SERGEANT HILL'S SOLUTION

I intend to drive the cows to the crossroads and tie them to a fence near the sentinel post, using wire for this purpose if nothing better can be found. Then I intend to return to the picket and report.

DISCUSSION

Many things occur to alarm sentinels on outpost. Since firearms were invented, it is probable that sentinels on outpost at night have fired more shots at animals than at human beings. Apparently, such occurrences cannot be avoided. In campaign, soldiers soon learn that every alarm at night does not signify that the enemy is coming, or that any particular danger exists. But no matter how frequently these minor alarms occur, the occasion for them must be investigated. In the long run, you will become irritated rather than alarmed when you hear shots fired at night. If it seems probable that the men of your particular outpost unit are responsible for the alarm, you will probably say to yourself: "The chances are that it does not amount to a hill of beans"; but even so, the matter must be investigated.

Although Corporal Nelson has a squad on the spot, the picket cannot omit the investigation on the supposition that Corporal Nelson has enough men to enable him to look into the matter. As far as the picket knows, Corporal Nelson and his entire squad may have been surprised and captured. Captain Rowen can quickly determine by telephone whether the alarm was raised at the picket itself, but a picket can seldom be in telephonic communication with a sentinel post, particularly at night. If Corporal Nelson attempted to telephone at night, it would be hard for him to prevent his voice from being heard at a great distance.

While you are patrolling away from the sentinel post, it is better to be on the safe side of the road. The safe side is the one which enables you to make a run in any direction. If you find the wagon road clear for several hundred yards, there is relatively little danger in returning by the route mentioned in the solution. You may then be reasonably sure that whatever alarmed the sentinel post is no longer in the immediate vicinity. In any event, considering the time that has elapsed since the sentinels fired, you will probably find, if you find anything at all, either stray animals or a small Red patrol that has been sent out to locate and fasten itself to one of the elements of our outpost.

If a part of the bridge planking had not been removed, you would, of course, have driven the cattle back as far as the support. It would not be wise to arouse a detail of men to re-lay the planking at this time of night.

There are two good reasons for taking possession of the cattle. First, they will not disturb the outpost any more. Second, they are strays, and fresh beef is good for the soldier.

Sentinels who mistake cattle for an enemy, and open fire, justly deserve rebuke, even though we recognize that such occurrences must be expected. The form of the rebuke depends upon what kind of men the sentinels are. Ordinarily, it will suffice to let the company know what has happened. During the ensuing day or two the company will attend to the rest, in a manner that will not be wanting in effectiveness.

One other point deserves mention. The first sergeant sent you to investigate. It would be wrong for him to investigate in person, even if he happened to be on watch at the time. He commands the picket and belongs with it. Inexperienced commanders are inclined to wander off on side issues, and, in consequence, are frequently in the wrong place when a crisis occurs. Side issues must be left to subordinates.

* * * * * * * *

There are other details connected with an outguard which might be made subject of additional situations in this problem. To summarize in particular some of the precautions that would be taken, we may say that the men should sleep with their belts and bayonets on, and their rifles alongside. The bivouac should be close to the barricade; fairly comfortable ground for sleeping being necessary. The men should be told how to form up in case of alarm, and the formation should be drilled two or three times after dark and before the men are allowed to go to sleep; otherwise confusion can hardly be avoided. It is better to keep the bayonets in the scabbards and later fix them to the rifles as the men run to their positions, particularly if the bivouac and the position to be held in case of alarm are cramped.

Eighth Problem

A Cossack Post and A Sentry Squad

EXPLANATION

In previous problems the nature and purpose of cossack posts and sentry squads have been made fairly clear. We might add that their first duty is to observe and give warning. Their secondary duties include the obligation to remain concealed from view, and to intercept all strangers in the vicinity in such manner as to prevent their escape.

A cossack post consists of four men and posts a single sentinel. A sentry squad consists of seven, eight, or possibly nine men, and posts a double sentinel; that is, two men, generally within whispering distance of each other. In daytime a single sentinel is frequently sufficient. At night a double sentinel is nearly always necessary. We have already explained that a cossack post or a sentry squad may be either an outguard, or simply a sentinel post of an outguard. (See Situation V, Seventh Problem, and I. D. R. 693.) It may happen that a sentry squad will be assigned to an outguard position of such importance and difficulty as to require the detail of an officer to command it.

SITUATION I

Based on Situation II, Seventh Problem.

You are Corporal Nelson. Read First Sergeant Holmes' orders to the entire platoon (page 91) and his orders to you (page 92).

What arrangements do you make under those orders?

CORPORAL NELSON'S SOLUTION

I make sure that the men understand the information given as to the direction of the enemy, the local geography and the location of the other outpost units and of the main camp. I repeat the orders concerning the disposition of strangers and readiness for action. I then announce the

three reliefs of one man each and state that each sentinel will be one hour on duty and two hours off. I then post the first relief, tell him to observe particularly the three roads that converge at 502, and I see to it that he uses properly the covered position assigned to him. The other men are shown their position when not on post. Then I send the men of the second and third reliefs to cut the wires and bring in the inhabitants of the two houses, as ordered by the first sergeant.

DISCUSSION

It is impossible to locate on a map the exact position of a body of troops as small as a cossack post. A little experience will soon teach you how much in the way of brush, or other features, is required for suitable cover, and the proper way to use the cover that you find. One reason for remaining as well concealed as possible is the safety of the men; another is the prevention of definite information being received by the enemy; another is the advantage that cover gives you in handling situations like the one that follows.

SITUATION II

The men sent to cut wires have returned. At 4-15 P. M. the sentinel points up the road to the northeast and says:

Red patrol coming.

Looking cautiously up the road, you see, 400 yards away, a single Red cavalryman trotting rapidly towards you. About 100 yards in rear of him, and slightly in rear of the crest of the ridge, you see the upper part of another horse and rider, halted, the rider apparently looking in your direction.

What do you do during the next 30 seconds, assuming that at the end of that time the Reds advance with two men riding about 150 yards in rear of the first man?

CORPORAL NELSON'S SOLUTION

I order the men:

Get ready under cover. A Red patrol is coming. When I command "Fire" jump into the road and fire. I will take the first man. The rest of you take the others.

DISCUSSION

In order to decide intelligently the proper thing to do, it is advantageous to know how a cavalry patrol generally operates. To cover ground rapidly, it is practically confined to the use of roads, but it does not rush blindly along these roads. Let us try to figure out how the patrol now in your front is working. We will suppose that the patrol consists of four men. They know that we are on, or very near, the Harrisburg Road, and they have been sent out to discover and report our progress or location. One or two men usually lead the way. Let us assume that one man rides 100 or 200 yards, or even more, ahead of the patrol leader. This lead-off man rides rapidly through Heidlersburg and reaches the favorable observation point near roadfork 545 and halts there. The patrol leader and the one man who is riding with him advance to the observation point, and the leader, using his field glasses, examines carefully the country to his front. The fourth man of the patrol remains 100 yards or more in rear of the leader. The patrol leader finds no trace of his enemy and sees no suspicious signs. He then sends the lead-off man at a fast trot to the next ridge, a half mile northeast of crossroads 502, and follows him a moment later. On the ridge another halt is made, the country is again carefully examined, and the lead-off man is again sent forward. Before coming to a final decision to cross the Conewago and to reach the high ground where Company A now happens to be the cavalry patrol, in the manner described, makes one more halt on the ridge 450 yards northeast of crossroads 502. From this ridge the patrol can see the road nearly to Plainview. Apparently, the Reds think the road is clear, and the lead-off man is trotting rapidly forward, while the patrol leader, who is no longer required to be cautious about exposing himself, halts where he can get a better view while the lead-off man is getting his distance. We know that our picket is entrenching its position. Apparently, the Red patrol

cannot see this on account of the trees on the island and along the west bank of the Conewago. If the patrol intends to go to Plainview, the lead-off man will probably halt a moment at crossroads 502, look to the right and left, and then start to cross the bridge. He may pass the cossack post without seeing it. Meantime, the remainder of the patrol will be coming along at various distances. From head to rear, the patrol may be 300 yards or more in length.

With this general idea of cavalry patrolling clearly in your mind, you understand why one man was seen halted, while the other was advancing. If the man who halted saw anything suspicious, he would probably whistle to the lead-off man and call him back. Until you see this done, you may be sure that the man who halted was merely waiting for the other to gain his distance to the front. It would be premature, therefore, to open fire at once. You might "get" one man, but the others would quickly disappear, and, thereafter moving very cautiously, they might learn much. On the other hand, if you can break up practically the whole patrol by "getting" several horses and men, the one or two survivors, if there be survivors, will be obliged to give up patrolling and return with scant information. A fresh patrol, sent to clear up the situation developed by the first one, might be stopped elsewhere (for example, near Heidlersburg) by one of our cavalry patrols, or by Corporal Koenig's or Butler's patrol if they happen to be northeast of crossroads 502. In any event, whatever information the enemy finally receives would either be late or very indefinite. You should attempt, therefore, to hurt the Red patrol enough to make it *stop patrolling*.

SITUATION III

The lead-off man trotted past you and reached the north end of the bridge nearest Plainview, and then suddenly turned about and galloped back, meantime signalling "Halt." Two men of the patrol are 50 yards, and another man 200 yards, northeast of crossroads 502. They halt.

What do you do?

CORPORAL NELSON'S SOLUTION

I command:

Fire at will.

I fire on the horse of the lead-off man.

DISCUSSION

It is very evident that the lead-off man saw the picket at work in its trench. The time has come for you to spring the trap. If you can disable the horse that you fired at, there is little probability that the rider can escape. An examination of the rider may result in giving us valuable information. All parts of an outpost seek information of the enemy. Very frequently information can be obtained by examining equipment and clothing. For this purpose, a dead man is as good as a live man, but a live man may be willing to talk. If there had been a fair chance that the man would escape, the situation would have been different.

SITUATION IV

You disabled the horse that you fired at. The rider fell with the horse, but immediately arose and surrendered. Looking in the other direction, you see two horses and one man lying in the road, motionless. One of the men nearest the crossroads is just disappearing into the woods west of the road, while the fourth man gallops over the ridge and disappears, apparently unhurt.

What do you do?

CORPORAL NELSON'S SOLUTION

I order:

Barry, disarm that prisoner and bring him to me.

I put all the men and the prisoner back in our former concealment.

DISCUSSION

Although it is likely that you have seen only an inde-

pendent patrol, it is possible that these men constitute the point of an advance guard. We can never tell from the size of the first body of hostile troops we meet how large the force behind it may be. In the present case, there may be nothing in rear, or there may be a platoon of cavalry, or a troop, or a squadron. In fact, the four men may be (but probably are not) the leading element of a large mixed force of all arms. If there is anything behind the patrol, other troops will soon appear on the ridge; if not to attack, at least to investigate. It is best, therefore, to wait with all your men concealed. If the enemy appears in strength, you will warn the outpost by opening fire.

The outguard will undoubtedly send a patrol to investigate. When that patrol arrives, we can consider the matter of searching for the man who disappeared, and can examine the man lying in the road. Also, the patrol can take over the prisoner and carry back your verbal report, if First Sergeant Holmes does not appear in person. If, at the end of several minutes, no enemy appears, the matters mentioned can be attended to, including an examination of the ground for a clue as to whether the man who disappeared was wounded.

SITUATION V

For the purpose of comparison, we shall assume that, instead of crossing the bridge, the lead-off man turned southeast at the crossroads, apparently without seeing any signs of Blue troops on the road towards Plainview. Also, that there is little doubt that the entire patrol will take the same route.

What would be your plan?

CORPORAL NELSON'S SOLUTION

To open fire when the whole patrol offered the best target.

DISCUSSION

This question is harder to answer than the former one (Situation IV). If you are quite sure that the hostile patrol is riding away from the Blue outpost without having

obtained any information, and that its future route, until it returns to its main body, will not put it in the way of obtaining information, it would be best to remain concealed and let the patrol pass. But it is not possible that our brigade can be so close to its enemy, and in the enemy's country, without the enemy knowing our approximate location. We have been marching today, but even so, the commander of the Red force in front of us probably would not be five miles off in his estimate of our present location. It is almost impossible to conceal our movements in the enemy's country, when that country is so populous and so generally equipped with telephones as the country around Hunterstown and Heidlersburg. We can only hope to conceal the *details* as to our strength and position.

The Red patrol in our front may not see your cossack post, but the patrol leader may have decided that he is now getting so close to where our brigade is supposed to be that it is time for him to get off the main road, and hereafter use the side roads. In other words, it is only a question of a few minutes before this patrol is going to run into our outpost, or be told by farmers that Blue troops have appeared at various places along the Conewago within the last hour or two. We may seriously doubt that any other part of the outpost will have as good an opportunity as you to break up this patrol and make it *stop patrolling.*

The killing, wounding, or capturing, of four men will have no effect whatever upon the outcome of the war; the object in firing is primarily to prevent the enemy from obtaining information, and, secondarily, for us to obtain information of the enemy from the clothing, or equipment, or talk of the members of the Red patrol. The information we would thus deny to the enemy and obtain for ourselves may have some influence on the campaign.

SITUATION VI

At dark the remaining four men of your squad arrived. You had previously been ordered to construct a barricade, and post a sentry squad for the night, as mentioned in Situation III, Seventh Problem.

How will you divide up the squad for its duties during the night?

CORPORAL NELSON'S SOLUTION

For double sentinel: six men (three reliefs of two men each, one hour on and two hours off). One man (Humphrey), second in command. I will remain awake until 1 o'clock, and Humphrey will remain awake from that time until a half hour before daylight, when everybody will be awakened.

DISCUSSION

A sentry squad has several advantages over a cossack post. Of course, it has twice as much fighting strength, but, aside from this, it has a distinct advantage in having men to perform sentinel duty in pairs. Two men hear more and see more, and, on account of increased confidence, are less likely to alarm the troops on slight provocation. Furthermore, the squad leader and the second in command can divide the night, and thus there will be always one man awake at the bivouac of the squad. It is very difficult for one man to remain awake the entire night. In a cossack post, the commander generally goes to sleep sometime during the night, and the sentinel calls him when it is time for the next relief to be posted. This is not a satisfactory arrangement.

In garrison or camp guard it is customary for a man to walk his post two hours, and then have four hours off. The men of a cossack post or sentry squad get very little continuous sleep in any event, and it is no particular hardship to limit each period of rest to two hours. It is a hardship, however, to require a man to stand two hours as a sentinel. The strain on eyes, ears, and nerves, and the discomfort of the concealed position, are far greater than in the case of a sentinel in a garrison or camp guard. All things considered, therefore, the most satisfactory arrangement is "one hour on, two hours off."

Ninth Problem

A Reconnoitering Patrol

EXPLANATION

"Reconnaissance is the military term used to designate the work of troops or individuals when gathering information in the field * * *". (F. S. R. 11.)

"The chief duty of reconnoitering patrols is to gather information. They habitually seek safety in concealment or flight, fighting only when their mission demands it. The most skillful patrolling is where patrols accomplish their mission and return without being discovered by the enemy." (F. S. R. 23.)

The periodical patrols that have been mentioned in the Sixth and Seventh Problems are strictly local, and are intended to make the outpost line effective. These patrols are covering detachments in the sense that they assist in preventing an attack without due warning, and in preventing the enemy from obtaining information. A reconnoitering patrol, on the other hand, is in no sense a covering detachment. When sent from an outpost, it generally goes a considerable distance beyond the outpost line, and for the purpose of obtaining some desired information. If cavalry is available, an infantry reconnoitering patrol will rarely have occasion to go more than two miles beyond the outpost line.

The following paragraphs should be studied in connection with patrols sent on reconnaissance: F. S. R. 23 to 29 inclusive. I. D. R. 604 to 622 inclusive.

SITUATION I

Based on Situation VII, Seventh Problem. You will remember that the Conewago is not fordable along the front of our outguard.

You are Sergeant Hill, and have received instructions

as given in the first sergeant's solution (page 103). It is assumed that you have, or have received, the special articles of equipment mentioned by him.

What do you do, up to the time you reach the bridge nearest Plainview?

SERGEANT HILL'S SOLUTION

I order:

Brown, McGowan, unhook your bayonets and hook on your canteens. Lay aside all but 40 rounds of ammunition and get ready for patrolling; then fall in here for inspection.

While they make these preparations, I do likewise and inspect my rifle. When they fall in, I inspect them and their rifles and equipment, and order:

Empty your pockets.

I take from them whatever letters or other articles they may have of a nature that would give information to the enemy and, with like articles of my own, turn them over to First Sergeant Holmes. I then give the following instructions:

We are going to Heidlersburg to see if the town is occupied by the enemy. Heidlersburg is on this main road, and a mile and a half northeast of here. The last information we had was to the effect that the enemy is four miles northeast of here, on the Harrisburg road, the same road that Heidlersburg is on. I will tell you more about our route when we reach the sentinel post. We come back as soon as we learn whether Heidlersburg is occupied, or, if we find Reds, we come back when we learn whether they are halted for the night or are still on the march. Brown is second in command. Do both of you understand? With ball cartridges, load. Follow me.

DISCUSSION

The preliminary measures taken by you are quite different from those of the flank patrol in Situation I, Third Problem. The reason for this difference must be apparent. No one's progress is dependent upon the time you take for your preparations, and it is most important that the patrol should start in good physical condition and properly equipped.

The mission of a patrol will determine its equipment. You will return before dark. You will not fight except in

self-defense. Therefore, any articles of equipment except the rifle, canteen of water, and a few rounds of ammunition would be superfluous and an unnecessary burden. You would be given a map if one were available. Apparently, the first sergeant had none even for himself, else he would have given it to you for a few minutes, to enable you to make a sketch copy of so much of the country as related to your patrol.

A reconnoitering patrol should leave the outpost line without being seen if possible. But the Conewago is unfordable, and you are obliged to cross at the bridges. This will enable you to ask the cossack post for late information, and from the vicinity of the cossack post you can describe better your proposed route; but from that point the patrol must lose itself as quickly as possible, and thereafter avoid exposure. If the Conewago were fordable, you would go immediately into the woods west of the picket, cross the island at some point west of the bridges, slip cautiously across the road west of crossroads 502, and then go into the big woods.

SITUATION II

At the cossack post you learn nothing new. You tell Corporal Nelson the direction and purpose of your patrol. You explain to Brown and McGowan that, after passing through the big woods to the north, you expect to find wooded ravines leading towards Heidlersburg and paralleling the main road. Also, that you know of no Blue troops or patrols in your front except a cavalry patrol on the side roads east of Heidlersburg. Also, that Corporal Koenig's or Butler's patrol may be encountered within a few hundred yards of the cossack post. It is now 3-55 P. M.

What do you do up to the time the patrol has advanced another half mile?

SERGEANT HILL'S SOLUTION

I order:

Brown, march out the left hand road, along the right hand side of the road. I will follow at 25 yards. McGowan, follow me at 25 yards.

When we have advanced about 400 yards, I order:

By the right flank, march. McGowan, follow me at 25 yards.

I try to march parallel to the Heidlersburg road, the interval between myself and the other men depending upon the density of the brush.

DISCUSSION

Even while going from the picket to the cossack post, you would not expose your patrol any more than necessary, and, while talking with Corporal Nelson, you would avoid revealing his position to a possible Red observer, military or civilian. This you could do best, probably, by remaining in the road, and apparently talking to your own men while actually talking to the corporal.

As we have stated, the patrol was compelled to expose itself while crossing the bridge. You would not have gained anything if you had made a detour and had crossed the Conewago by the ford 800 yards south of crossroads 502, or the ford 1,000 yards west of crossroads 502. The woods north of crossroads 502 give you an opportunity to conceal yourself, and to deceive any Reds or inhabitants who may have seen you cross the bridges. If you had entered the woods at the crossroads, any one who had observed you from the high ground to the northeast or east would be on the alert for your reappearance somewhere along the Heidlersburg road. By marching rather openly to the west, you may escape further curiosity on the part of such observers. If you are observed from the high ground to the west, your disappearance into the woods might lead an observer to look for your re-appearance somewhere along the road towards crossroads 609. At any rate, whether your ruse is successful or not, you have lost very little time, and you have observed the principle that, if the patrol *must* expose itself, it should throw possible observers off the trail as soon thereafter as practicable.

The formation used while marching on the road has been discussed in previous problems. The formation used while passing through woods is quite similar to one which will be discussed in Situation IV of the present problem.

SITUATION III

At 4-12 P. M., you reach the east edge of the woods near the west end of the wire fence 600 yards north of crossroads 502. You see two Red cavalrymen and an extra horse on the north slope of the ridge 500 yards northeast of crossroads 502, apparently far enough down the slope to be concealed from Corporal Nelson's cossack post. A third man is walking from the crest of the ridge towards the horses. The corn is cut and in shock but the Reds do not appear to be looking in your direction.

What do you decide to do?

SERGEANT HILL'S SOLUTION

I decide to remain concealed and in observation long enough to determine whether the Reds seem to be a patrol, a point, or a march outpost.

DISCUSSION

Naturally, you would not open fire. You were sent out to get information, and must under no circumstances reveal your location, or even your existence. You remain in observation, not necessarily for the purpose of obtaining information to be sent back at once to the picket, but for information that will guide your own further movements. If the Reds remain halted, they may be a march outpost, or even a standing patrol well in advance of an outpost. Their arrangements will probably indicate their character. If they show little curiosity as to the woods that you are in, you may be quite sure that they have not been in their present position very long, else they would have seen you cross the bridge. If the Reds move and nothing else is in rear of them, you may take it for granted that they are on patrol. It is possible, of course, that they will prove to be the point of a marching column. Even so, you would not make the discovery much earlier than the outpost itself. No matter, therefore, what developes within the next few minutes, you have as yet seen nothing to warrant the sending of a report by messenger.

SITUATION IV

The dismounted Red soldier mounted the extra horse and, about a minute later, one Red trotted towards crossroads 502, followed at about 200 yards by the other two, About the same distance in rear, a fourth man appeared. You decided to await the impending clash with Corporal Nelson's cossack post. A few moments later, brisk firing began, and presently you saw one Red cavalryman galloping towards Heidlersburg. Firing ceased and, after a pause, you were convinced that the other Reds had either been killed or captured, or had escaped by some other route. You proceeded north under cover of the woods, and presently saw two wooded ravines leading northeast towards Heidlersburg. You chose the one farthest from crossroads 502, and finally arrived 400 yards west of roadfork 545, at the point where the east edge of the rectangular patch of woods meets the ravine. About a half mile to the northeast you see several housetops. The houses in the west end of Heidlersburg are seen quite clearly. Three hundred yards north of your present position there appears to be the crest of a ridge which extends towards Heidlersburg. You see no signs of Red soldiers or civilians.

What do you do?

SERGEANT HILL'S SOLUTION

I order:

Brown, 15 yards on my left. McGowan, 25 yards in rear of Brown.

With the patrol in this formation and guiding on me, I advance north, as deep in the woods as possible, while still close enough to the edge to observe the open country to the east.

DISCUSSION

Sergeant Hill told you to go to Heidlersburg. This must not be taken too literally. It means simply that you should go close enough to the village to determine with certainty whether there are any Reds in Heidlersburg. The

village is very small and it is not at all improbable that you will be able to find a point from which you can examine every street and the fields immediately about the village.

The ravine to the northeast will lead you to low ground close to Heidlersburg. The narrow strip of cover in the ravine may be insufficient cover for the patrol. The woods to the north, on the other hand, give you excellent cover to the ridge that extends southwest from roadfork 578. From the edge of the woods on this ridge, you may be able to see the village streets very clearly. Failing in this, you would have to decide where to go next.

You probably remember that in a previous problem we recommended a skirmish line with wide intervals as a suitable formation for an advance guard flank patrol passing through woods. There is a good reason for a different formation in the present case. An advance guard flank patrol seeks to cover as much of the woods as possible, in order to determine whether the woods are occupied by a hostile force strong enough to be dangerous to the main column. While the escape of one or more men of such a patrol is desirable, it is relatively less important. But a reconnoitering patrol uses woods merely as a covered way for getting forward. It seeks to avoid the enemy. In your present formation, you personally march so as to observe towards Heidlersburg. Brown marches on your left so as to prevent the patrol from being surprised from the north or west. Finally, McGowan is as far in rear as easy communication and the density of the brush permit, and he is in the position to escape. If the patrol is surprised and you and Brown are unable to get back to the outpost, the advantage of McGowan's escape lies in the fact that the fate of the patrol will become known and whatever information you have already gained will be reported. There is also a reason why McGowan should follow Brown instead of you. You are obliged to exercise skill and judgment in estimating how deep into the woods you must go to escape observation, and, at the same time, to be close enough to the edge to observe the open country. If McGowan fol-

lowed you, he might be less skillful or more careless, and thus expose the patrol.

SITUATION V

When you arrive on top of the ridge, you see a farmer ploughing in the field, east of the woods. He is moving from north to south, close to the edge of the woods.

What do you intend to do?

SERGEANT HILL'S SOLUTION

I intend to signal the patrol to march by the left flank and move west. While giving the farmer a chance to reach the south end of the field, the patrol will go to the west edge of the woods and take a look in that direction.

DISCUSSION

In warfare in civilized countries, the local inhabitants generally seem unwilling to suspend any of their work, even though armies are close by. As a matter of policy they are disturbed as little as possible, but naturally we must give them no opportunity to injure us by conveying information to troops of their own army.

Even if you managed to capture the farmer without attracting the attention of some one that you have not yet seen, you would merely have a white elephant on your hands. The farmer would be unwilling to give you any information, and probably knows very little in any event. You could not release him after questioning him. You can not spare a man to guard him, or to take him to the picket while the rest of the patrol continues, and you cannot tie him up or kill him. He will soon be out of your way if you let him alone, but give him a chance to be far away.

SITUATION VI

When you reach the west edge of the woods you see, in the ravine 200 yards south of the southwest corner of the orchard, a Red soldier walking rapidly northeast towards the house on the road. After watching him a moment,

you notice that he has spurs, but no hat or rifle.

What do you intend to do?

SERGEANT HILL'S SOLUTION

I intend to avoid being seen, and to return at once to the east edge of the woods.

DISCUSSION

Having read the preceding problem, you probably suspect that the Red soldier belongs to the patrol that clashed with Corporal Nelson's cossack post, and that he escaped. He is more dangerous than the farmer, inasmuch as he will be the bearer of information to the Red commander if he succeeds in returning. But it is not likely that his information will add materially to what is already known of our brigade. He is apparently unarmed, and it would probably be very easy to capture him, and to prevent him from reporting what little he knows, but he would be as much of a white elephant as the farmer. Furthermore, you are not going to settle the war by picking up single men here and there. When you are given a distinct and important task, you should not permit any trivial thing to lead you from the direct prosecution of that task. At the present moment you are an important part of the brigade commander's team, and he wants teamwork. He wants you to obtain for him a certain thing; information as to what, if anything, is in Heidlersburg. Do not start your own little war or campaign, but do all in your power to get the desired information.

SITUATION VII

When you were about half way through the woods, you heard hoof-beats on the road to the north, apparently three of four horses. You now arrive in the edge of the woods, on the top of the ridge, about 300 yards southwest of roadfork 578. There appear to be several Red cavalrymen halted near roadfork 545, but the trees in the ravine make it difficult to distinguish them. The road that runs

west from Heidlersburg is clear of the enemy, but near the main crossroad of the village you see a hundred or more dismounted cavalrymen holding their horses. After watching them for a few moments, you realize that the horses are being watered.

It is now 4-55 P. M.

What do you do?

SERGEANT HILL'S SOLUTION

I write the following message:

No. 1

Sgt. Hill's Patrol
½ mile W. of HEIDLERSBURG
4-55 P. M.

Two or more troops cavalry in HEIDLERSBURG. Now halted and watering horses. Red patrols on roads to west and southwest of HEIDLERSBURG.

Hill,
Sgt.

I call Brown and say:

Read this message. Now tell me what the contents are, without looking at it.

When he has done so, I add:

Go back by the route we came and give the message to Sergeant Holmes. Tell him I remain here.

DISCUSSION

In written messages or orders, geographical names are always written in capital letters, as a precaution against error.

There are two things frequently found in messages, but omitted in the one you sent back. First, the message itself does not indicate the person for whom it is intended. But Brown knows, and if it falls into the hands of a stranger it is better that the stranger should not know. It would be absurd, for example, to address the message: "Sergeant Holmes, Outguard No. 2, Support No. 1, Plainview Bridge." In this form the message would contain information of no possible value to Sergeant Holmes, but of considerable value to the enemy, if Brown should be intercepted. Second, the message does not state what your further movements will be. This information can also be

given verbally to Sergeant Holmes. If it is included in the message and the message falls in the hands of the enemy, you may be hunted out of your position. It is even doubtful whether you should write on the message "½ mile west of Heidlersburg." It would serve your purpose just as well, and possibly better, if Brown were ordered to tell First Sergeant Holmes, "I am a half mile west of Heidlersburg and shall remain here." At all events, you should remember that a message should not contain anything that is of value to the enemy and of no value to your own commander, or that may be given orally just as well. Also, the messenger should know the contents of the message, unless there are good reasons to the contrary, in order that he may convey the information in case he should lose the message or be obliged to destroy it. We would not advise you to trust the messenger's memory with a verbal message in the present case. The message is too long to be delivered accurately.

The regulations say that in the enemy's country important messages should be sent by two messengers, or in duplicate by two single messengers returning by different routes. But your patrol was made small because it was foreseen that this principle does not apply in your case. Yours is not a distant patrol. Your route affords excellent cover, and your messenger is not obliged to pass farm houses, settlements, trails, or roads.

You probably have no doubt as to the propriety of sending back the information you have obtained so far, nor as to the necessity for continuing your observation. It would be unnecessary to attempt to cross the road to the north in search of a more advantageous observation point. You have a good station and, under the circumstances, you might defeat the object of your further reconnaissance by attempting to cross the road in search of a better observation point.

SITUATION VIII

At 5-10 P. M., the Red cavalry mounted and rode west through roadfork 578 with an advance guard of about a

troop. Your patrol was well concealed and you were able to time the main body as it trotted past roadfork 578 in column of twos. It required the main body two minutes and twenty seconds to pass the roadfork. The group that appeared to be a patrol near roadfork 545 has disappeared, but you were unable to see where it went. The enemy did not send a patrol along the ridge on which you are stationed. While the main body of the Red cavalry was passing roadfork 578, you heard firing about a mile to the south, by less than a dozen rifles, and for less than a minute. The tail of the cavalry main body has now disappeared and is about north of you. The sound indicates that the cavalry is still trotting.

What do you intend to do?

SERGEANT HILL'S SOLUTION

I intend to observe Heidlersburg at least five minutes longer.

DISCUSSION

An infantry column would probably patrol the woods in which you are located. Cavalry generally patrols farther to the flanks and pays less attention to minor places of concealment along the route of march. It would be out of place to discuss the reason for this, but the fact explains why you were not molested.

We can imagine circumstances under which you would return at once with the information you have received. For example, if this were a column of infantry and artillery you could arrive at the outpost with your information in time to make the information of real importance. In the present case, there are two reasons why you should remain in observation. First, if the hostile party intends to attack any part of the outpost for the purpose of determining its location or strength, it will strike our outguards before you can return with your information. Second, the cavalry may be in advance of an infantry column. If you remain in your present position a short time, you may be able to discover signs that will settle this question. Even

if the leading infantry element of such a column were now as much as two or three miles northeast of Heidlersburg, there would be more or less activity between the infantry column and its independent or advance guard cavalry (as the cavalry would then be called) which has just passed you. Of course, a cavalry column operating alone may be followed by patrols which, on account of having been sent to the flanks, have lost distance; but many of these will have rejoined during the long halt in Heidlersburg. Furthermore, a cavalry main body does not travel as rapidly as its flank patrols, and these local patrols usually rejoin quickly.

You might very properly have sent Brown to the west edge of the woods to observe the enemy's direction of march. The advisabililty of doing so depends upon the exact character of the woods and underbrush, and in reality the question could be decided correctly only on the ground.

SITUATION IX

Although you remain in observation ten minutes longer, you observe no further signs of Red troops in or around Heidlersburg, except about twenty troopers who followed the main body by about a half mile, apparently a small rear guard. You have seen a few civilians in the village. The sun set a half hour ago and it will be dark in another half hour. Naturally, you decide to return.

1. What route do you select?

2. What report do you make?

SERGEANT HILL'S SOLUTION

1. To the west edge of the woods, then south to the first stream, then along this stream to crossroads 502, then to the picket.

2. I report to Sergeant Holmes:

A Red squadron halted in Heidlersburg for about twenty minutes and left there 5-10 P. M., marching west at a trot, with an advance guard of one troop. It took the main body two minutes and twenty seconds to pass a given point in column of twos at a trot. No other troops were in Heidlersburg when I left there at 5-25 P. M.

DISCUSSION

You went first to the west edge of the woods, not only to get a final glimpse of the Red cavalry if possible, but also for your own safety.

Two hundred cavalrymen in column of fours will trot by a given point in one minute; in column of twos in two minutes. A troop of our cavalry will have, roughly, 75 men in ranks. But if there is any doubt as to the organization of the enemy's cavalry, you can at least say that its main body contains about 225 troopers.

* * * * * * * *

For comparison with Sergeant Hill's patrol, we recommend that you study the leading of "An Infantry Patrol," page 99, Studies in Minor Tactics, 1915. This patrol has a different mission, a longer route, and, because of the time of day and the duration of the patrol, it carries a different equipment.

Tenth Problem

A Visiting Patrol

EXPLANATION

The preceding problems have probably shown the nature and purpose of visiting patrols. A brief recapitulation, however, will be made.

Visiting patrols consist of two or more men each. They are sent out from supports or pickets, or both, to keep up communication with adjoining outguards.

"For patrolling between the groups or along the lines of an outpost, or for the simpler patrols sent out from a covering detachment, the average soldier will be a competent leader." (I. D. R. 608.)

We have seen that these patrols are not necessary in daytime when all the ground along the line of observation can be observed by sentinels. At night, however, visiting patrols are indispensable. They inform us as to conditions along the front and at our sentinel posts and outguards. By using them properly we lessen the likelihood of the unobserved approach of an enemy, between sentinel posts, in a force larger than a patrol, and frequently we are able to discover and drive off hostile patrols. Visiting patrols are the means of exchanging the latest information among the elements of the outpost and, in many cases, they take over strangers detained by outlying outposts and deliver them to the picket or support commander. Visiting patrols also give lonely cossack posts or sentry squads the feeling that there is coöperation and mutual support among the outpost elements.

SITUATION I

Based on Situation VI, Seventh Problem. You are Private Towney, in charge of the first relief. Read the instructions given you by the first sergeant (page 102).

You have been over the route once by daylight, and three times with Willis after dark. It is now 12-30 A. M. You and Willis have been awakened and are about to start out again.

1. What preparations do you make?

2. What formation do you adopt while advancing towards the cossack post southeast of your picket?

TOWNEY'S SOLUTION

1. I carry only my belt, rifle, and bayonet; the bayonet fixed to the rifle. I inspect these articles to see that they are in working order. Then I inspect Willis to see that he is equipped in the same manner, and that his equipment is in working order. Then I direct him to follow me at 8 paces.

2. The formation will be single file, with myself in the lead and Willis 8 paces in rear.

DISCUSSION

Your patrol does not require the same equipment that Sergeant Hill used in the Ninth Problem. Even the canteen may be left behind; it may rattle and is sometimes troublesome, and your trip is short. It is not necessary to carry materials for writing messages, since you will carry back in person whatever information you get. A small electric flashlamp, however, is a convenient article for you at night. A company will probably have many of these lamps in time of war.

The patrol leader should be in front on account of the fact that things frequently happen suddenly and require quick decision. Although the other man is only 8 paces in rear, that distance makes a great difference in the ability to see. The exact distance between yourself and Willis would depend upon how far you can see at night. As far as the ability to see is concerned, there is a much greater difference between one night and another than there is between one day and another. On account of the fact that nearly the entire route lies through woods, or along the edge of woods, we assumed that the distance would be quite short.

On a clear night, and in open country or roads, the distance might be as great as 20 paces. If the patrol were larger, so that two men could march in the lead, the distance could be even greater than 20 paces, provided, of course, that the leading men could be seen easily.

The outguard commander arranged only two reliefs for your patrol. You are obliged to leave the outguard every two hours, and your sleep will be very much broken up. Even so, you are better off than the sentinels who are one hour on and two hours off. Your patrol can cover the route in a half hour. The patrol that crosses the Conewago has twice the distance that you have, but since it can use the roads, it may be able to cover its 3,500-yard route in forty minutes. If a visiting patrol has a very long route, and if there are enough men available, the outguard commander will naturally organize the patrol into three reliefs.

SITUATION II

You are now in the patch of woods 500 yards southeast of the picket and you hear four shots, apparently fired in the vicinity of our sentinel post at crossroads 502.

What do you intend to do, assuming that no other shots are fired?

TOWNEY'S SOLUTION

I intend to halt and listen for a short time, then continue on my way.

DISCUSSION

In a preceding problem we have stated that much of the firing which occurs at night along an outpost line has no special significance. Your only object in halting and listening would be to gain information. From your present position you may be able to hear something that would amount to useful information to the outguard commander on your return. For example, if you heard several horses galloping along the road across the Conewago from where you now are, that information would assist the outguard commander in clearing up the situation.

SITUATION III

Continuing along the bank of the Conewago, you arrive at a point which you know, from your previous trips, is 30 or 40 yards from the cossack post sentinel.

What do you do?

TOWNEY'S SOLUTION

I halt and give the signal *twenty-three,* and then listen for the answer.

DISCUSSION

It is not wise to appear suddenly within sight of an outpost sentinel. Sentinels are sometimes nervous. If it so happened that no night signal had been prescribed, you could call out, "Towney's patrol," but only loud enough to be heard by the sentinel if he actually is where you think he is. Of course, signals or calls, even though given very carefully, may attract the attention of an enemy who might be nearby, but this would happen very seldom. In the long run, a signal or call will give better results; it is good insurance against a rifle shot which may not only hurt someone unnecessarily, but which may also reveal the location of the cossack post to an enemy far beyond the hearing of your signal or call.

SITUATION IV

Your signal was answered, and after you advanced you were recognized by the sentinel.

What do you intend to do while you are at the cossack post?

TOWNEY'S SOLUTION

I intend to ask the sentinel what he knows about the firing, and whether he heard anything after the firing. I intend to ask him for other news and to tell him the latest news from our picket. Then I shall start on the return trip.

DISCUSSION

If the commander of the cossack post is not awake, there is nothing to be gained by awakening him. The sentinel knows all that the commander knows, and perhaps more, as far as the events of the last half hour are concerned. When you exchange news with the sentinel, you would limit yourself strictly to business, and talk in as low a voice as possible; then leave at once.

SITUATION V

You have passed through the patch of woods 500 yards southeast of the picket, and you are now advancing along the fence towards the trench, with the patch of woods about 50 yards behind you. You hear footsteps in front of you and halt, crouching to the ground. A moment later the figure of a man looms up.

What do you intend to do?

TOWNEY'S SOLUTION

I intend to let the man approach until he is so close that he cannot escape; then challenge him.

DISCUSSION

There would be no object in warning the man by using the night signal, even if you suspected that other men might be following him. If he or his party is friendly, your challenge will serve the purpose just as well. On the other hand, if he or his party is hostile, or if he is an unauthorized stranger, and you use the night signal as soon as you hear his footsteps or first see the outline of his figure, you are simply warning him in time to let him escape. You remember that one of the important duties of a visiting patrol is to pick up all strangers in the vicinity of the outpost. If you permit them to escape, you may claim that you have driven them off, but it is much more important to capture strangers than to drive them off. Comparing this situation with the one which precedes it, you will observe that there are times when night signals

should be used, and other times when they should not be used. Experience and a little common sense will enable you to decide a doubtful case.

Sergeant Hill's patrol (Ninth Problem), and the patrol that we shall study in the Thirteenth Problem, are obliged to dodge any strangers they may meet, because these patrols are seeking information. Your visiting patrol is of the kind that may be, and sometimes is, called a covering patrol; that is, they make the outpost line as tight as possible in order to prevent the enemy or strangers from penetrating it in either direction.

SITUATION VI

The man you challenged made no effort to escape. He was dressed in the uniform of a private of the Blue army. You searched him for weapons and found that he had none.

In answer to your questions he states that he is a member of Company D of your regiment, and that his company is in the outpost reserve. He also states that he is on his way to Conewago Creek to take a bath. Neither you nor Willis remember having seen the man before.

What do you intend to do?

TOWNEY'S SOLUTION

I intend to take the man with me to the picket, ordering him to march quietly in front of Willis.

DISCUSSION

By asking questions you might easily satisfy yourself whether the man really belongs to Company D. You might ask him to name his officers, his first sergeant, and other noncommissioned officers; the cooks, the company clerk, etc., confining your questions to persons that you or Willis know, and that no private would be likely to know unless he belonged to Company D. However, your orders are strict. All the men of the picket were told to bring in all persons picked up by patrols except members of Company A, patrols from Company B, and officers whom you are

sure you know. There is no use wasting time trying to find out whether the man is really a Blue soldier or some stranger disguised as a soldier. If you will leave this to the sergeant on watch at the picket, you will get a few minutes more sleep before you start out again on patrol.

Eleventh Problem

A Detached Post

EXPLANATION

A detached post is one which, on account of distance, or the road net, or location with respect to the line of resistance, is separated from the general outpost line.

A detached post may be sent out by the outpost commander, or by the main body commander; it depends upon the situation and terrain. If sent out by the outpost commander, it may be assumed that he considers the post a necessary part of the line entrusted to him, but too distant or inconveniently located to be under the command or supervision of one of the support commanders. If sent out by the main body commander, it may be assumed that he considers the post necessary, but too distant or inconveniently located to be placed under the command or supervision of the outpost commander. In Situation V, Seventh Problem, both kinds of detached posts were referred to.

The duties of a detached post are ordinarily the same as those of an element of the outpost proper. Its size and location determine whether it will resemble a cossack post, sentry squad, picket, or support. Naturally, the outpost is between the enemy and our main body. A detached post, if used at all, is ordinarily on a flank.

In the present problem we shall deal very briefly with a detached post sent out by the main body, to illustrate the fact that such a post adopts practically the same means for security as an element of the outpost proper.

SITUATION I

In the Seventh Problem you were reminded to note the detached post between hill 712 and Bridge S. H.

It will simplify matters if we use the names with which

we are already familiar. For convenience, therefore, we shall re-state the situation in such manner as to use the First Platoon, Company A. You are First Sergeant Holmes, in command of that platoon.

Our brigade has been marching northeast from Gettysburg, on the McElheny—Plainview—Heidlersburg road, in the enemy's country. It has been reported that the enemy is several miles to the northeast, and that our brigade will halt south of Conewago Creek until tomorrow or the day after, to await reinforcements.

The Conewago is reported to be fordable only at the fords shown on the map. It is November 1st, and the corn is in shock.

The Second Battalion and Machine Gun Company of our regiment, with a troop of cavalry, form the advance guard. Our battalion has marched at the head of the main body and is now halted near crossroads 561. The brigade adjutant arrives and consults Major Crosby. He then sends for you and says:

Take this map and examine it (he points out on the map or on the ground the places to which he refers later). The enemy is on the Harrisburg Road about four miles northeast of Plainview. Our brigade is going into camp about where it is now halted. The First Battalion and Machine Gun Company of your regiment, and one platoon of cavalry, will form our outpost a mile northeast of here, astride the road through Plainview and the road to Hershey Mill. March your platoon over that hill (712—707) and establish a detached post covering the Conewago crossings near Bridge S. H. Three mounted orderlies will report to you very soon for duty with the detached post. You will be connected with brigade headquarters by telephone. Your battalion commander will inspect your position later.

What security would you provide for the march towards Bridge S. H., assuming that the mounted orderlies do not join before you start?

THE FIRST SERGEANT'S SOLUTION

I send Sergeant Hill and one squad, as advance guard, with instructions to patrol off the road when necessary; the remainder of the platoon to follow at 400 yards.

DISCUSSION

It is our purpose to deal with your detached post in

the briefest manner possible, to avoid details that are included in preceding problems.

We must assume that the map given you by the brigade adjutant is one of the kind that is ordinarily available in time of war, and does not show the many details which we find on the map we are now using. From the crossroads, therefore, you have only a general idea of the country to the west and northwest. You will be obliged to march about a mile on a road that the advance guard may have patrolled, but as far as you know, there are now no Blue troops in that direction. The distance, together with the fact that you may need flank reconnaissance and cannot plan it in advance, makes it unwise to send the squad forward as a *point*. You will remember that a point is a patrol that leads the way, but does not leave the road. If it becomes necessary to send out flank patrols, these patrols could not be sent from your main body and be of any use, unless the main body halted until the patrols reached the places to which they were sent. If you merely tell Sergeant Hill that his squad will march out as point, he may assume that he is not to leave the road. It is better to call the squad the advance guard, and, to be doubly sure of a complete understanding and proper protection, it is well to add that he will take care of flank reconnaissance. He can send out two patrols of two men each and still have five men on the road. It is not likely that he will be obliged to use more than two patrols.

All the officers of the brigade will be busy for the next half hour or more, getting the men off their feet and into camp with as little effort and loss of time as possible. This is their most important duty at this particular time. Hence, both Major Crosby and the brigade adjutant are too busy now to go with you and see that your detached post is well placed with respect to the ground and the outpost and main camp. The fact that an officer has been ordered to inspect your dispositions is no reflection on your ability. Outpost elements are always inspected by someone higher in authority, and the inspector, who, in your case, represents the brigade commander, is supposed to order whatever changes he thinks are necessary.

SITUATION II

Assuming that you have arrived on the ground and that the mounted orderlies have reported, also that you have made your preliminary reconnaissance and have found that the Conewago is not fordable except as shown on the map, describe briefly the day position of the detached post.

THE FIRST SERGEANT'S SOLUTION

The platoon entrenches just off the road and east of it, 350 yards southeast of Bridge S. H., so as to cover the bridge nearest Bridge S. H. A cossack post is placed at the bridge nearest Bridge S. H., and another cossack post is placed in or near the west end of the orchard 300 yards northwest of 712. Two mounted orderlies are placed as a standing patrol on hill 586, 1,500 yards northwest of Bridge S. H. The other mounted orderly remains with me.

DISCUSSION

The position selected for the trench enables the platoon to fire effectively on the first bridge. After the trench is completed, the men would not occupy it except when the enemy must be opposed. It is difficult to determine on the map the best resting place for the platoon. It is probable, however, that you would place the men in the woods across the road from the trench. By cutting the fences and placing a screen of brush from the edge of the woods to the end of the trench, the three squads would be able to occupy the trench in a very short time, and without exposure. Your sentinels, particularly the two men on hill 586, would give you ample warning of the approach of the enemy.

In the Seventh Problem, we placed the cossack post at the second bridge northeast of Plainview on account of the fact that it was necessary to guard against the destruction of both bridges by Red patrols. The brigade expects to use those bridges when reinforcements arrive and the advance is resumed. In the present situation, however, the bridges northwest of Bridge S. H., have not the same

importance. It may not be wrong to send the cossack post to the second bridge, but we prefer the position nearer the platoon. The bridges are useful to Blue patrols, but if the second bridge is wrecked, there still remains the ford a half mile west of it.

The ford just mentioned is easily seen by the standing patrol on hill 586; hence, it is not necessary to place a cossack post in that direction. The question arises as to the action of the platoon in case the enemy advances by way of the ford. The platoon would move in that direction and resist to the best of its ability. It cannot be in two places at once, and, in any event, it will have accomplished its purpose when it has given the brigade ample warning of the enemy's advance. The outpost near Plainview is squarely in front of the enemy, and is expected to hold the line of resistance, which is the same line as the line of supports. In view of the cavalry and outpost reconnaissance, it is not likely that a large Red force can pass unobserved around one of our flanks. A small Red force may be able to do so, but in this case a detached post can warn the brigade in time to permit the deployment of a force large enough to stop the enemy. Detached posts, therefore, are primarily warning detachments, although they resist to the best of their ability.

"For observing from some point in plain view of the command * * * two men are sufficient." (I. D. R. 607.) Mounted men make useful sentinels at favorable observation points which are too far away to be used by dismounted men. They are usually posted in pairs. From hill 586, the sentinels have an extended view in every direction. If the enemy approaches, the fact can be signalled directly to the picket, and the sentinels can mount up quickly and retire by way of the ford or the bridges if necessary. The other orderly will be useful to you as a messenger.

The cossack post near the orchard northwest of 712 has an extended view to the west and northwest. It cannot see the bridge near Fidler, but it can see the road northwest and southeast of the bridge.

One squad should furnish both cossack posts; this makes it easier to keep a company duty roster. The cor-

poral should take the cossack post at the bridge, and No. 2 of the squad should take the other.

It is now evident that the platoon itself must have two sentinels in daytime; one in or near the trench to keep the Bridge S. H. cossack post and the country to the east in sight, and one in the west edge of the woods to keep the other cossack post and the standing patrol on hill 586 in sight.

On your right flank you will locate the left element of the outpost proper. On your left flank you must be satisfied if you provide security as far as the ford southeast of hill 586. The Fidler—588 road is too far away for you to cover except indirectly by observation from a distance as already mentioned. If that road is important and requires more attention tonight than cavalry patrols can give it, the brigade commander will probably send another detached post in that direction.

SITUATION III

The left element of the outpost proper is a small outguard near the bend in the road 600 yards southwest of Hershey Mill. When Major Crosby arrived to inspect your detached post, he approved your dispositions and asked whether you had considered a plan for night positions.

What plan would you suggest?

THE FIRST SERGEANT'S SOLUTION

I would withdraw the standing patrol on hill 586; combine the two cossack posts and send them as a sentry squad about 50 yards northwest of the roadfork 1,000 yards west of Bridge S. H., with double sentinel towards the ford; and move the platoon forward to the south side of the Conewago, at the first bridge, posting a double sentinel directly from the platoon to watch the bridge, the road to Beatrick, and at the same time serve as picket sentinels; the first bridge to be barricaded, and a part of the planking of both bridges to be removed. One visiting patrol (3 reliefs) would go from the platoon bivouac to Beatrick; then follow the fences southeast 400 yards, northeast 300 yards, and southeast 400 yards to the outguard; then south-

west along the farm road to main road; then northwest on the main road to the platoon bivouac. Another patrol (3 reliefs) would go west 500 yards along the Conewago, and another 500 yards along the farm road; then to the sentry squad; then to the roadfork 200 yards northwest of the ford; then east and southeast along the main road to the platoon bivouac.

DISCUSSION

In a previous problem we have stated the reasons that would prompt you to move the platoon to the bridge. The move results in placing your platoon rather far from the supporting troops, but this can seldom be avoided when we deal with detached posts. The sentry squad near the ford is also rather far away. The outpost proper ordinarily would not place small detachments so far apart.

The enemy cannot make a rush attack by way of the bridges, on account of missing planks and the barricade. A double sentinel at the platoon bivouac will therefore serve the double purpose of observing the first bridge and acting as bivouac guard, thus saving at least four men.

We would not recommend sending a fresh squad to the ford. By combining the two cossack posts, the squad that is used will get credit for a complete tour of outpost sentinel duty.

Naturally, the standing patrol on hill 586 is useless at night. If the members of this patrol, and their horses, have an uninterrupted night's rest, they will be in condition to return to the hill shortly after daylight. Two or more reliefs for this patrol are unnecessary. The men themselves can arrange to divide the time; one man on observation being enough, while the other holds the horses under cover. Their meals can be sent to them from the platoon.

In this situation, the routes of the visiting patrols are so long that two reliefs would not give the men enough rest.

SITUATION IV

Sergeant Hill made an outpost sketch. By visiting the standing patrol on hill 586 he was able to extend the sketch

to show creeks, farmhouses, roads, and woods north of the Conewago as far as the 587—554—582 road. An impressed guide, who lives near crossroad 666, furnished Sergeant Hill the names of the farmers whose houses appeared on the sketch. Farm buildings near the Conewago have been vacated.

The night passed quietly. Shortly after daylight you resumed your day positions. After breakfast you were called to the telephone, and told as follows:

This is Captain Hall, the brigade quartermaster. Take paper and pencil and make note of the following. A farmer named Bream has a farm about a mile northwest of Bridge S. H., and on the main road just southwest of Friends Grove S. H. It is reported that he has a fine herd of ten or twenty cattle. The brigade commander directs that you send a patrol at once to bring them in.

What do you do?

THE FIRST SERGEANT'S SOLUTION

To Corporal Clark:

Get your squad ready for patrol. Carry belt, rifle, and canteen only.

While Corporal Clark is making his preparations, I write the following on a piece of paper.

Nov. 2.

Received of Mr. Bream——head of cattle, taken by order of brigade commander. Account payable by quartermaster.

Holmes,
1st Sergt. Co. A, 1st Inf.

When Corporal Clark's squad is ready, I lead it to the road and give the corporal the following orders in the presence of the whole squad:

Examine this sketch and make a copy of what you need. A mile and a quarter out this road to the northwest there is a crossroad. Just north of it there is a school called Friends Grove School. A short distance west of the crossroad, on the road leading west, there is a farmer named Bream. It is reported that he has 10 or 20 head of cattle. Go out and bring the cattle in. Bring Bream or a member of his family with you. If there is no one on the farm, fill out the blank space in this receipt and leave it at the house. Repeat.

DISCUSSION

The brigade commander's orders, transmitted through a staff officer, the quartermaster, was purposely made less

definite than would ordinarily be the case, in order to bring more forcibly to your attention some important matters relating to the taking of private property in hostile country.

When we march through hostile country, we generally find that the enemy has removed many of the supplies we would find there under other conditions. Nevertheless, we search the country for such supplies as are useful to us, in order to lessen the amount that must be hauled to the troops by railroad, auto trucks, and wagons, and to give the men and animals a variety of food which, on account of bulk or rapid deterioration, cannot be hauled at all. It is important for every soldier to understand that, if we take such supplies and do not pay for them, or do not pay a fair price for them, the inhabitants will remove or carefully hide whatever they possess. On the other hand, if we pay a liberal price, the fact soon becomes known to the inhabitants, and we shall probably have the benefit of a great many desirable things found locally. The soldier's condition and well-being would suggest to him the advantage of seeing to it that the owner of supplies is properly protected. You must remember that the inhabitants of a hostile country cannot sell supplies to us without being liable to severe punishment by their own government. The supplies must be taken away from them against their will, and it is not against the law of their own country to accept payment for supplies taken in this manner. If we avoid unauthorized looting, and if we pay generously for what we take, we shall find that many inhabitants will place their property where we can see it, or they may even inform us secretly that they have it. In the present case, it is not at all unlikely that Farmer Bream has heard rumors that we have good discipline, that we do not take property except under competent orders, and that we pay generously; and for these reasons he has left his cattle in a field or pasture, where they have been seen by one of our cavalry patrols.

The best plan would be to have Bream come to the outpost with his cattle. A supply sergeant could meet him there later and pay him, or deliver to him the formal receipts of the Quartermaster Corps (page 128, Rules of Land Warfare). The objection to using or encouraging receipts of

the kind you prepared, lies in the fact that some of our men are not always scrupulous, and, if such informal receipts are customary, unscrupulous men might offer fictitious and unauthorized receipts in exchange for small plunder. The owner of the property might be deceived by the receipt if it is generally understood in the community that informal receipts are in use. If it is not so understood, he might make up his mind to follow the plunderers and report them. The plunderers would merely use such receipts to allay the owner's suspicions, and thus escape detection.

It would be well to let the standing patrol on hill 586 know that Corporal Clark's patrol is going out, but we would not send an ordinary message to this effect by semaphore or wigwag. If Corporal Clark passes near the hill, he may be able to communicate with the sentinels, but it is more important for him to avoid exposure. Since several infantry or cavalry patrols may go out from, or through, your post, it would be a good plan to have a simple set of prearranged signals. For example: "Eight canteens" could mean "8 men going out by way of the *bridges*." "Three cups" could mean "3 men going out by way of the *ford*." Patrols that must move cautiously may be mistaken for the enemy by our own sentinels. It is a decided advantage to all concerned to inform sentinels when patrol are likely to be near them.

Twelfth Problem

A Requisitioning Detachment or Patrol

EXPLANATION

The name "patrol" ordinarily conveys the idea of a detachment sent out to gain information, or to cover a road or area that needs watching. "In special cases patrols may be given missions other than these." (I. D. R. 605.)

"The term patrols is used to designate small detachments employed for a variety of purposes, the name of the detachment indicating its duty, as visiting connecting, combat, exploring, reconnoitering, flanking, harassing, pursuing patrols, etc." (Footnote, F. S. R., page 17.)

A patrol or detachment sent out by our local commander to seize property or supplies that will be useful to our troops, operates legitimately under the laws of war (Rules of Land Warfare, 347). It is an entirely different matter when a group of soldiers seize such property or supplies in the enemy's country on their own responsibility. We would not call the latter a requisitioning detachment or patrol.

SITUATION I

You are Corporal Clark and have received orders to take your squad on patrol as indicated in the First Sergeant's solution, Eleventh Problem (page 145).

What preparations do you make?

CORPORAL CLARK'S SOLUTION

I order the squad to form for inspection with rifle, belt and ammunition, and canteen of water. In addition, I order McGowan to carry his wire-cutter and I borrow for myself an extra wire-cutter and the first sergeant's field glass and compass. I then make a copy of so much of Sergeant Hill's sketch as shows the country between Bridge

S. H., and the line Bream—Friends Grove S. H. I then inspect the men and their equipment and explain the first sergeant's orders to the squad.

DISCUSSION

In the whole range of military affairs correct *preparation* means a successful start and generally means a successful finish. Throughout these problems we have laid special emphasis on preparation. There is another point worth mentioning in this connection: If your first sergeant, or lieutenant, or captain gives you a patrol to handle, or any other task, for that matter, and observes that you then make the correct preparations in a businesslike way, he will probably say to himself, "Clark certainly knows how to start this thing. I will not worry about his ability to finish it." If a man really knows how to handle a task, he knows enough to make the correct preparations; which is nearly the same as saying that, if a man makes the correct preparations, it is a sign that he knows how to handle the task. In the present situation you may have little use for a compass or field glass, but suppose you had started to march off without wire-cutters. The first sergeant would have suspected that you intended to drive the cattle through gates and along highways, regardless of what the ground might be. We doubt that a first sergeant who has shown enough ability to be entrusted with the command of an important detached post would fail to observe your omission. In fact, we believe that he would have mentioned wire-cutters in his orders, but in this problem, as in all peace time exercises, we prefer to give noncommissioned officers an opportunity to think for themselves.

SITUATION II

You have made your preparations and have received your final orders.

What formation and route do you intend to use, up to the time that you reach the north bank of the Conewago, assuming that nothing occurs to interfere with your plans?

CORPORAL CLARK'S SOLUTION

I intend to have the squad follow me in column of twos through the woods along the west side of the road as far as the cossack post. After telling the commander of the cossack post where I am going, and asking him for the latest information, I intend to send the men in pairs, at about 50 yards distance between pairs, across the bridge and then off the road to the right, going as far as the woods at the south end of the second bridge, where the squad will assemble. From this point the squad will use the same formation in crossing the second bridge, and the squad will re-assemble in the woods west of the north end of the bridge.

DISCUSSION

If you march down the road to the cossack post, you might be observed from a distance and the observer's curiosity as to your future movements and intentions, might finally result to your disadvantage. Likewise, in crossing the two bridges, you should avoid attracting attention. If the Conewago were easily fordable, you would cross it near the mouth of Opossum Creek and thus avoid exposure. There would be no advantage in crossing at the ford. The distance is greater and you would be obliged to cross long open spaces.

SITUATION III

The squad has re-assembled as planned in the last solution. You have seen no signs of the enemy or of Red inhabitants.

What formation and route do you intend to use, up to the time that you reach the 587—554—582 road?

CORPORAL CLARK'S SOLUTION

I intend to follow the wooded creek (Opossum Creek) that parallels the 534—554 road; marching in the woods, but close to the west edge, so as to avoid being seen from the houses along the road. I intend to send two men ahead as point; then myself and three other men in single file with

myself in the lead, following the point at about 75 yards; then a rear point following us at about 50 yards.

DISCUSSION

In the previous problem, the first sergeant provided for flank reconnaissance for the platoon during its march from crossroads 561 towards Bridge S. H. The present case is not similar. You are advancing with as much secrecy as possible and do not require flank patrols. Naturally you will watch your flanks, but you will not detach men from the column for its protection. The safest method is to depend upon the concealment afforded by the woods, but a point in front and another in rear will probably prevent the squad from being surprised as a whole.

SITUATION IV

When the point reached the bridge between Bream and crossroads 554, you signalled it to halt. The remainder of the patrol advanced to the bridge.

You now observe that the bridge stringers are only three feet above the ground; that from the east end of the bridge an observer can see the Heidlersburg road as far as the house 400 yards east of crossroads 554, and the higher points of the road to the north as far as J. Fohl; that the road to the west can be seen as far as the bridge 800 yards from where you are; that a herd of twelve cattle is about 300 yards north of Bream's house, grazing in the stubble field.

What do you do?

CORPORAL CLARK'S SOLUTION

Orders to Pine:

Pine, take Stone with you. Pass under this bridge and post yourself near the east end of it, in the edge of the woods, where you can see the roads to the east and north. If Reds approach, go to the west edge of the woods and signal the fact to the rest of the squad; then hide and watch the Reds, and signal *o. k.* when they have disappeared. Repeat.

Orders to Brown:

Brown, take Hagan, McGowan and Schafer with you to drive

the cattle to this bridge. Going out, pass under the bridge and through the woods along the creek to that fence along the north side of the field (400 yards north of Bream's house). Drive the cattle east to the woods, then to this bridge where I shall meet you. Detail a man to watch towards this bridge for signals from Pine, and to watch towards Bream's house for signals from me. If we signal, *Enemy in sight*, get into the woods and hide until we signal, *o. k.*, then resume your job. If we fire, join us at once by the shortest route. Repeat.

Then I add:

Ames and I are going to visit that house (100 yards west of the bridge) and then the second house, which is Bream's, to cut out their telephones, watch the occupants and see Bream or his family.

DISCUSSION

Your orders hardly require discussion. They indicate that security and warning are necessary and that, if Reds appear, the patrol will hide as best it can until the danger is past; also, that the whole patrol must assemble in case of discovery and a fight in self-defense.

When we are in the enemy's country, telephones are a constant source of annoyance and apprehension for our patrols or small detachments. In the present situation, for example, it may be that the enemy has a cavalry detachment that is using Heidlersburg, or Center Mills, or some other nearby point as a base from which patrols are sent out. Such a detachment may have a man at the local telephone exchange, and farmers may have been forewarned to call up the telephone exchange whenever any Blues appear in their vicinity.

The success of your patrol depends largely upon secrecy. Nevertheless, you are now obliged to expose at least six men, but you should not on that account, be careless and do imprudent things. For example, you should not cut the fences at the bridge until the cattle are acutally there and ready to be driven south. Such action would result in needless exposure. The occupants of the houses to the west might divine your intentions before their telephone connection was destroyed.

SITUATION V

You found Bream at home and brought him with you to the bridge. Here the patrol assembled. The cattle are

in the southeast corner of Bream's field, near the west end of the bridge.

What route and formation do you intend to use on the return trip?

CORPORAL CLARK'S SOLUTION

I shall cut the fences near the west end of the bridge and return by the same route that we used in coming out, except that, from the bridge near 534 we shall use the road. The herd will be driven in the open field as close as possible to the west edge of the woods that line Opossum Creek.

Two men with wire-cutters will precede the herd by 50 yards as far as the bridge near 534. Bream and three men will drive the cattle, Bream taking the most exposed (west) flank. Three men, including myself, will follow the herd at 200 yards. From the bridge near 534, Bream and one man will drive the herd along the road to our detached post. The rest of the squad will remain near 534 until the herd reaches the north bridge across the Conewago, and then follow.

DISCUSSION

The map indicates that there is brush in the woods along Opossum Creek. The effort to conceal the patrol as much as possible can hardly be carried to the extreme of attempting to drive the herd through such woods. The woods will screen the herd on the east side, and the high ground, on the south end of which we have a standing patrol (586), will screen it on the west side.

Your formation resembles that of a convoy on a small scale. If we were to change the formation at all, we would reduce the point to one man, and the drivers to two men, thus making five men available for the rear guard. You can readily see that the rear guard has become the most important element in case a small Red party discovers what you are doing, and attempts to interfere with you before you reach the protection of the detached post. For this reason, also, you may dispense with a point when you reach 534 and, since two men can drive a herd along a road lined with

fences, the entire squad is available to prevent interference before the herd reaches the island in the Conewago.

While you were marching *towards* Bream's house, you could have no excuse for fighting except in self-defense. But on the return trip you would fire on any Red party, if by doing so you could prevent a discovery of your real operation, or could prevent interference with it. For example, if a Red patrol arrived at crossroads 554 from the east or north, you would drive it off if its further progress threatened the success of your little convoy. Therefore, one man of your small rear guard should march close to the edge of the woods so as to be able to see the ground east of Opossum Creek.

Thirteenth Problem

A Contact Patrol

EXPLANATION

The patrols that we have studied heretofore in connection with the Plainview outpost are of the kind that are intended to warn us if the enemy approaches. It is frequently just as important to know whether the enemy is going away. When two armies are in close contact and one feels obliged to retreat, the start is frequently attempted at night. For example, if at night our outpost line faces the enemy's and during the preceding day the enemy has been badly defeated, or we have been heavily reinforced, the enemy may decide that it is dangerous or unwise to remain. If he begins his retreat during the night (as Lee did at Gettysburg), and without our knowledge, he will have a good start by the time we discover his move, and we shall lose the great advantage of a close pursuit. Towards morning we shall be in contact with a mere skeleton of his original outpost; possibly only a line of small outguards. The main body and even the outpost reserve and supports, may be gone. Hence, when we have reason to believe that the enemy may retreat during the night, we should get our patrols *behind* the enemy's line of observation; as near the larger bodies of troops as possible. A patrol that arrives in a favorable position fastens itself to the body of troops which it has found, and remains there in hiding and in observation as long as possible. It attempts to send or bring back information if it discovers any definite signs of the enemy's intention to leave. Such a patrol might well be nick-named "night leech." It is a difficult patrol to lead because if the enemy intends to retreat, he will naturally try to make his line of observation impenetrable,—"hog tight," as the farmers say when they refer to their strongest fences. The return trip of mes-

sengers, or of the whole patrol, may be as difficult as the trip out.

If the enemy is some distance away, the cavalry usually furnishes these contact patrols. A cavalry patrol will leave its horses in hiding, in charge of two or more men, while the others, on foot, attempt to penetrate the enemy's outpost or detached posts. But when contact is close—for example, where the opposing sentinels are only a few hundred yards apart—infantry patrols make the attempt along this front, while cavalry patrols may be sent to make similar attempts on the flanks.

SITUATION I

Continuation of Sixth to Tenth Problems inclusive.

In the Eleventh and Twelfth Problems we arbitrarily borrowed the First Platoon for convenience. We shall now return it to its original position and assume that it has been there since we concluded the Tenth Problem.

You are Sergeant Hill of the First Platoon. The First Platoon formed the picket near the bridges northeast of Plainview, and first occupied its position on the afternoon of November 1st. It is now 8-00 P. M., November 2d, and it has been dark since 5-45 P. M.

Important things have happened today. Shortly after noon the enemy made a sudden attack against our front along the Conewago, from the bridges where our platoon has been stationed to the cavalry detached post 1½ miles southeast of our platoon. The enemy failed to force a crossing at our two bridges, but he captured the three fords to the southeast of us. The outpost battalion was soon deployed on the east slopes of the 616 and the Plainview spurs, but it was in serious danger nevertheless. The main body of the brigade, however, went forward in counter-attack along both sides of the water course that runs almost east-northeast from roadfork 535. But the enemy was well equipped with artillery, while we had none; and the counter-attack was stopped when it reached a line parallel to, and a short distance east of, the 616—544 road. Red troops continued to cross at the fords and severely hammered our

long line until 4 o'clock, until which time matters looked very serious for us. At that hour, however, the first of our reinforcements arrived; a full regiment of artillery that had trotted ahead of the infantry brigade with which it had been marching. The regiment carried as many infantrymen as its guns and carriages could accommodate, and three troops of cavalry rode in front and patrolled the flanks. When our artillery opened fire, the enemy was through. If our brigade had not been so roughly handled and exhausted, we might have greatly damaged the enemy. But he maintained a stubborn firing line on our side of the Conewago until it was practically too dark for us to see it. Under cover of this line, the other Reds on our side of the Conewago re-crossed the creek. At dark, when the firing line of our brigade finally reached the creek, the men found that the enemy had very ingeniously stretched more than 100 lines of rope across the Conewago, fastening the ends to trees. That explained why we caught so few Red prisoners at the fords.

The Second Brigade arrived at dark, but the hour was then too late, and our brigade was too disorganized to permit a change of outpost troops for tonight. The First Platoon lost seven men. The Second Platoon (Sergeant Crane) lost even more. These two platoon were consolidated and stationed as a picket at the old post of the First Platoon; that is, near the barricade of the first bridge, with a sentry squad at the south end of the second bridge. The second bridge, however, was badly wrecked during the fighting. The other changes made in the outpost have not yet been reported to the picket.

Yesterday afternoon three rowboats were found by another picket near Hershey Mill. One boat was turned over to our picket last night, and has been kept out of sight on the south bank of the west end of the large island on which our sentry squad is posted.

First Sergeant Holmes, the picket commander, now (8-00 P. M.) calls you and says:

Get yourself and Butler, Quinn and Walinski, ready for patrol through the enemy's outpost, and then report to me for orders.

When you are ready, the first sergeant gives you the following orders:

The enemy has sentinel posts at various points along the road that follows the opposite bank of the Conewago. There is one near the crossroads in front of us (502). We do not know whether the main body of the enemy has halted across the Conewago for the night, or has marched off. Our picket is no longer sending patrols on the roads just across the creek. Other patrols like yours may be sent on other roads, but I know of none, and you are not likely to meet any. Take your patrol through the enemy's outpost line and follow the Heidlersburg road to locate the outpost support or reserve. If you find none between here and Heidlersburg, come back at once. If you find one, keep it in sight and come back if it marches off. In any case, be back here at daylight. You have already been in that direction on patrol and know the country as well as I do. Cross at the ford or by the ropes southeast of here, or take the boat at the west end of the island. Let me know which you choose. Repeat.

In the open, you can see a man at about 100 yards distance if he is on the skyline and standing; otherwise, about 25 yards if he is standing, and about 10 yards if lying down.

1. What equipment will the patrol carry?
2. What route do you intend to follow?
3. What formations will the patrol use?

SERGEANT HILL'S SOLUTION

1. Each man will carry a rifle, belt with 40 rounds of ammunition, and canteen. In addition, I personally shall carry a wire-cutter, watch, electric flash lamp, and note book and pencil; also, of course, the compass which is a part of my unit equipment.

2. I intend to cross by means of the boat; cross the road about midway between crossroads 502 and the road-fork 700 yards northwest thereof; pass through the big woods so as to get in touch with the Heidlersburg road at a point not less than 200 yards northeast of crossroads 502; then, using the telegraph or telephone poles as a guide, advance along the west side of the road and 75 or 100 yards from it, but swinging around the ridges so as not to appear on the skyline, and swinging around any farmhouse that may be along the road.

3. After landing on the north bank of the Conewago, the patrol will proceed in single file, with 10 pace distances

and myself in the lead; on hands and knees or crawling when necessary. When the patrol is some distance inside the big woods it will be formed with one man from 3 to 10 paces on my left (exact distance depending upon the amount of light); behind this man will march another at the same distance, and then a fourth man at the same distance behind the third. The same formation will be used after the patrol leaves the big woods.

DISCUSSION

The first sergeant's orders indicate that you are probably in for a hard night's work. Fortunately, such patrols are not a daily occurrence.

First, we desire to say a word about the equipment. It is November 2, and therefore the nights are cold, but we have not gone into details as to the clothing of the troops. If the troops have their overcoats, the members of your patrol would wear theirs. Otherwise you would try to rustle an extra flannel shirt and sweater for each of the men, so that each man could wear two flannel shirts and two sweaters. Failing in this, we would recommend that you carry blankets. Under no circumstances should you fail to make provisions for keeping the men fairly comfortable. You might dispense with these articles if the patrol were to march continuously, but it is likely that you will be obliged to remain inactive and concealed for several hours and you should prepare accordingly.

The men of the visiting patrol in the Tenth Problem carried bayonets, but you will remember that this patrol was obliged to challenge any one it met, and to make prisoners of all strangers. You, on the other hand, should under no circumstances attempt to fight, except in self defense as a last resort. Under these circumstances, we believe that a patrol such as yours, which should march stripped of all unnecessary equipment, will be better off without bayonets. For the same reason, you need very little ammunition, but the length of time that your patrol will be out makes it advisable to carry canteens of water. The wire-cutter can be carried in the pocket and may be

very useful. The flash lamp will be a great convenience in case you have to examine your watch or compass, of have to write a message. In using it, however, you should lie close to the ground and carefully cover your hands and the lamp with your hat or overcoat.

The first sergeant very properly made no reference to crossroads 502 as a starting point for your patrol, even assuming that you could pick your way across the bridge wreckage. The Red sentinel post would stop you at the very beginning. The same objection may be offered with respect to the ford 700 yards southeast of our picket. Although the ford is not near the road, it is quite certain that the enemy has it under observation. The lines of rope might enable your patrol to cross without being observed, but the men would be soaked, and the night will probably be a long and cold one. However, the final reason for choosing to cross by means of the rowboat, is the fact that it places the patrol on the most favorable side of the Heidlersburg road, as we shall see later. To tell the truth, we forced the situation when we allowed the first sergeant to leave to you the choice of your crossing place.

In addition to the Red sentinel post near the crossroads 502, you may as well take it for granted that there is another Red sentinel post at the roadbend 700 yards northwest of crossroads 502, and that frequent patrols pass between these two points. You will be obliged to use the utmost care when you enter the boat, paddle it across, and leave it. You cannot use the oar-locks. When you reach the opposite bank, you must hide the boat as well as you can and make note of some nearby landmark.

On our map it is impossible to decide upon the exact route to the big woods, but it is quite probable that you will be obliged to approach the road on your hands and knees and then cross it by crawling. You must lead the way, and each of the other men must do exactly as the man in front of him does; that is, advance on his hands and knees, or crawl, or lie still. If the road were lined with woods on both sides, we would recommend that the patrol cross in skirmish line; but you are obliged to approach the road over ground that is as open to view as the road itself. It

matters little at what point you strike the woods. The main thing is to get into the woods undiscovered. Once you are in the woods, the first thing to do is to get safely away from the road that you have just crossed, and then try to find the Heidlersburg road at a point that is a safe distance from the sentinel post at crossroads 502. Your object now is to use the road as a guide.

As soon as you are clear of the woods, you will see the great advantage of being on the west side of the road instead of the east side. The greater part of the road will appear on the skyline; the tops of telegraph or telephone poles will almost certainly appear on the skyline throughout the distance to Heidlersburg. Your patrol will be either on a down slope or on low ground, with a dark background when viewed from the road. Hence, your patrol can walk parallel to the road and 100 yards away from it and still see the poles and, in many places, any man that might be on the road. A person on the road, however, would be unable to see you, though he might be able to *hear* you. It becomes, then, merely a question of how quietly you advance. Of course, you may stumble across a patrol, or even a sentinel, off the road. To reduce the chance of mishap on this score, you would loop around the spurs that run westward from the road, in order not to appear on someone else's skyline, but the road is still the guide.

When you have a long distance to go at night, and must avoid discovery, the surest method is to find a road or railroad, or a combination of roads, to follow. Study carefully the road or combination of roads that will lead you to your destination and then, if possible, choose the low side for your advance so that the poles, or even the trees or fences alongside, if there are no poles, may be on the skyline. Even in daytime, the tops of a line of poles are an excellent guide for a patrol that must avoid being seen from the road.

Under no circumstances would we consent to the route you followed when you patrolled towards Heidlersburg yesterday afternoon (Ninth Problem). You are now looking for the camp or bivouac of one of the larger outpost bodies. You will find such bodies on or near a road, *particularly at night;* and you are ordered to confine your attention to the

Heidlersburg road. A patrol easily loses its way at night. It will be hard enough to guide on the road when you consider the ridges around which you must pass, and the farmhouse squarely between the ridges. Farmers' dogs are especially troublesome.

The formation of the patrol while advancing parallel to the road is determined by the ground. The task of examining the country along the road falls on you. The man on your left must watch the other flank and guide on you. The other men follow him because he is the farthest from the road and nearest to the low ground, which is the safe ground. The same principle is observed as in the formation of your patrol in Situation IV, Ninth Problem.

SITUATION II

When you reach the cornfield 400 yards north of crossroads 502, and are midway between the water course and the road, you see on the road east of you, against the skyline, three men marching towards crossroads 502.

What do you intend to do?

SERGEANT HILL'S SOLUTION

Lie down and wait until the Reds are safely out of the way; then continue towards Heidlersburg.

DISCUSSION

As long as you have a decided advantage of position, it would be foolish to attempt to move. The three Reds probably from a visiting patrol, or they may be a relief of sentinels going out to be posted; it does not matter. They cannot see you, but they may hear you if you move. If your patrol is properly instructed, the men will naturally lie down when you do so. No signal or sound is necessary.

SITUATION III

As you continued towards Heidlersburg, you were able to examine the road where it crosses the spur a half mile northeast of crossroads 502. In the vicinity of the farm-

house you experienced greater difficulty, but, observing no signs whatever, and in view of the fact that the ground in that vicinity is very low, you decided that there was no large outpost body on or near that part of the road. Continuing your advance you passed through the cornfield west of the house, and circled around the west slope of the low spur in front of you.

You are now 300 yards northwest of the house, and about ready to make your way back towards the road, when you observe through the woods a number of small fires apparently 200 yards northeast of your present position.

What do you intend to do?

SERGEANT HILL'S SOLUTION

I intend to approach carefully until I can see whether there are any men around the fires.

SITUATION IV

You arrive at the point where the fence enters the woods (400 yards west of roadfork 545) and remain in observation for several minutes. There appear to be 20 or 30 very small fires, and occasionally men pass between you and some of these fires. Also, you catch the hum of low conversation. From other signs you decide also that, from time to time, men are coming to the fires from the direction of the road to the east and others are leaving the fires and going towards the road.

What do you intend to do?

SERGEANT HILL'S SOLUTION

I intend to remain in observation in or near my present position as long as the present activity continues.

DISCUSSION

In an outpost the building of fires is generally prohibited. In that case, how can we account for the small fires that you have discovered? The explanation is probably as follows: The enemy has been as late as we, or

later in getting his outpost established. The Reds have had nothing to eat since before noon. The night is cold. The men need hot coffee and food. After a battle there is always a temporary disorganization of messing arrangements. It is probable that the Red outpost cannot be served with hot coffee and food from some point farther back, and there must be some reason why the troops immediately in front of you cannot use indoor fires in Heidlersburg. Hence, the officer responsible for the fires has selected a ravine screened by a strip of woods and has ordered individual cooking, probably by squads and in relays. Under all the conditions, the necessity for hot coffee and food outweighs the necessity for complete concealment at a point so far (1 mile) in rear of the Red line of observation. Whether this explanation is correct or not, your discovery has undoubtedly revealed the fact that you have located a large outpost body, probably a strong support, on the road east, or nearly east, of where you now are. With the aid of our map we would conclude that the support is at roadfork 545, but it is not likely that your knowledge of the ground with respect to your present position would be definite enough to enable you to locate the support so precisely. It is sufficient to know that you have probably located an important outpost element.

The next question is, can you approach nearer to Heidlersburg, or improve your present position? We would not recommend such an attempt for the present. Of course, you will obtain the best results if you can locate the enemy's main body, because the enemy may march off, leaving supports in position as well as outguards. But there are times when we must let well enough alone. You cannot approach nearer to Heidlersburg unless you make a wide detour through the woods to the north. As we have said before, a patrol easily loses its way at night, particularly in woods, and you may eventually come out of the woods at a point where your discovery is almost certain. Even if it exercises the greatest care and skill, a patrol passing through woods and underbrush at night has many collisions with dry branches and other unseen obstacles. On a still night its progress may be detected by sound at a great distance.

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Our discussion has indicated what the future action of the patrol would be under ordinary circumstances. It is therefore unnecessary to carry the problem farther. One point only deserves attention: At night it is unwise to send back information or messages by a single messenger. Ordinarily, when you have information important enough to be sent back, the conditions will be such that the entire patrol may return at once; but if you desire to send a message and remain in observation, you should send two messengers.

Remarks on the Plainview Outpost

These remarks are inserted here in the hope that they will be of interest to officers who have followed the preceding eight problems, and who may have inquired into the larger aspects of the protection given the brigade. It is a further object of these remarks to encourage carefully prepared and complete situations, using the minor parts as bases for problems for noncommissioned officers. There are several interesting points in connection with the Plainview outpost. Some of these points will be discussed. Officers may derive much value from studying their own problems in like manner.

It was assumed that the brigade, with one troop of cavalry, was advancing to the northeast to hold the line of the Conewago until tomorrow or the next day, when reinforcements would arrive and a further advance would be made. Our information indicated that the enemy is inactive for the present, and after noon today our cavalry located him in camp about four miles northeast of Plainview. Our advance guard battalion and one platoon of cavalry constitute our outpost. The remainder of the cavalry is relieved from further duty with the advance guard and, after reconnaissance beyond the Conewago, will withdraw to the main body.

Outpost cavalry, if too weak to camp in advance of the outpost proper, is usually assigned to the reserve or support, or divided between two or more supports, sending patrols from the element to which it is assigned. Why, then, did Major Crosby order the outpost cavalry to a detached post on the flank?

Several reasons may be given for this decision. The platoon is, of course, too small to be posted across the Conewago. The picket and supports are connected with the reserve by telephone; this does away with the necessity for mounted messengers, and therefore no troopers need be detached for messengers. The river is unfordable except at well known places. The enemy is likely to send strong

patrols to the Conewago, particularly at night, to watch the important crossings at Hershey Mills and northeast of Plainview. Under these circumstances, it is just as easy to send cavalry patrols from the detached post. The extra distance by way of side roads is more than compensated for by the fact that these roads and the Conewago crossing which leads to them will be less carefully watched. Finally, a detached post at the point selected is necessary. The post selected is rather distant for an infantry platoon. All things considered, it is a good position for the outpost cavalry. A short distance to the southwest ample cover will be found for the horses.

If the brigade commander had not indicated that he would send a detached post from the main body towards Bridge S. H., would Major Crosby have been obliged to extend his outpost far enough to cover that road?

Major Crosby's orders were to establish the outpost on the general line of the ridge southeast of Hershey Mill and northeast of Plainview. An order in this form implies that the outpost will prepare to resist on the approximate line mentioned, but the outpost must reach beyond that line, if an extension is necessary for protection, although the elements thus placed on the flanks must be able only to warn and not to resist. How far beyond the general line should an outpost thus extend?

The question is not always easy to answer. In the present case, however, it is evident that the outpost must be ready to resist any hostile advance by way of Hershey Mill, the bridges northeast of Plainview, and the fords east of Plainview. It is also evident that the main body should at least be warned in case of a hostile advance by way of Bridge S. H., or the crossing at which the cavalry has been posted. Therefore, if the brigade commander had not placed a detached post on the Bridge S. H. road, Major Crosby would have been obliged to do so.

Has the brigade sufficient protection on its east flank?

The country around Woodside S. H. is fairly open to view from the main camp and the outpost, especially from the reserve and the cavalry detached post. What with patrols and the ordinary daytime activities of a large camp,

we may fairly assume that the brigade is amply protected during daylight. At night, however, there should be a detached post near 544. The present outpost comprises one-ninth of the whole command, and the enemy is close at hand. Under these circumstances, Major Crosby is justified in requesting the brigade commander to send a detached post from the main body. If Major Crosby prefers not to make this request, or if the brigade commander disapproves the request, another detached post, not less than a platoon, must be sent from the outpost reserve, unless the brigade commander assumes the responsibility for leaving that flank open.

Why are machine guns not assigned to the outpost?

Machine guns were omitted for the purpose of the problem. The machine gun company of our regiment should be assigned to the outpost. Until Major Crosby has inspected the outpost line and has decided where the machine guns are needed most, he would probably leave them with the reserve. His inspection would probably prompt him to send a platoon (two guns) to each of the outguards of support No. 1.

Why do the outguards entrench a day position some distance from the defiles that they cover, and then move forward to these defiles at night?

Let us assume that the enemy makes a vigorous attack in day time against the picket which covers the ford east of Plainview. If the picket lined the west bank with a firing line, the enemy, in greatly superior numbers, would line the east bank and smother the fire of the picket. With sufficient force, the enemy would have little difficulty in crossing the ford quickly. On the other hand, if the picket entrenched in the woods 400 yards west of the ford and cleared a field of fire to the island, the woods that line the west bank, together with the distance and the trenches, will greatly reduce the effect of the enemy's fire, and the picket may be able to concentrate on any troops that attempt to cross the ford. At night the situation is different. The enemy will not be able to fire effectively, even at the short distance which separates the two banks. The picket would be at the mouth of the defile, prepared to meet the enemy's nar-

row front with fire and bayonet. If the picket remained in its trench, the enemy could cross under cover of darkness and form a line on the west bank before advancing.

* * * * * * *

In a previous discussion the statement was made that in most cases reasons will be found for entrenching a picket. To illustrate a situation that would make entrenching unnecessary, let us assume that our brigade arrived in its present position so late in the afternoon that the outguards arrived in their day positions an hour or less before the time for moving into the night positions; and assume, in addition, that it is definitely known that the brigade will resume the march at daylight tomorrow.

Fourteenth Problem

A Small Outguard

SITUATION I

Our battalion has been at Biglerville, guarding the railroad. This afternoon several companies of Reds came from the south and attempted to the destroy the railroad bridge 1,000 yards east of Stiner. Our battalion left Biglerville at once, defeated the enemy north of Stiner just before dark, and drove him south on the Carlisle road. Our battalion pursued with Company A as advance guard; the First Platoon as advance party.

It is now a half hour after dark. Except against the skyline, a man can be seen at a distance of only 30 or 35 yards. The battalion has halted. The advance party is at Texas crossroads. The point (Sergeant Hill and the first squad) is probably 75 yards south of Texas crossroads

You are Corporal Adams, Third Squad.

Captain Rowen has assembled the noncommissioned officers of the advance party and now says:

No further news of the enemy. The main body of the battalion halts for the night at the bridge that we crossed a half mile north of here. Company A will be the outpost and will bivouac at these crossroads. Second Squad, go 500 paces west on this road and establish outguard No. 1. Third Squad, go 500 paces south on this road and establish outguard No. 2. Send back the connecting files and the point as you pass them. Fourth Squad, go 500 paces east on this road and establish outguard No. 3. Night signal: *Forward march*, and *Attention to orders*, (to be whistled). Posts.

What do you do up to the time you pass the point?

CORPORAL ADAM'S SOLUTION

I return to my squad and order:

The battalion will camp at the bridge a half mile north of here. The company bivouacs at these crossroads as outpost for the battalion. This squad goes 500 paces down the road to the south to establish outguard No. 2. Everybody march quietly. Kelley. take Miller and move out as point. The squad will follow you at 30 yards.

When Kelley and Miller have gained about 25 yards distance, I add:

Towney, tell me when we have gone 500 paces. Follow me (to the squad).

I follow Kelley and Miller at as great a distance as possible without losing sight of them. As I pass the connecting files and the advance guard point, I inform them that they are to return to the crossroads. I count my paces.

DISCUSSION

Speaking of marches, the Infantry Drill Regulations say that, if the distance to be covered necessitates either breaking camp before daylight or making camp after dark, it is better to do the former.

There are, of course, many disadvantages in making camp after dark, but the necessity for doing so is frequently imposed upon us by the enemy, as in the present case. Making camp in the dark is difficult and irritating. Posting a new outpost in the dark in unfamiliar country, if not difficult and irritating, is at least an unsatisfactory proceeding. It involves a long and careful reconnaissance in the dark by the outpost and support commanders. The elements of the outpost, after the men have settled themselves in a position which they hope to occupy, are likely to be called upon to move. The establishment of routes for visiting patrols becomes much more difficult. It will frequently happen that the outpost dispositions, when examined by daylight the next morning, will be found very defective in the light of conditions that could not be, or were not, discovered at night.

Captain Rowen had no reason to believe that each of the three outguards would find a suitable outguard position on its own road and exactly 500 paces from Texas crossroads. But Captain Rowen must inspect outguard positions at once, and his experience has taught him that he will save a great deal of time and annoyance if he knows exactly where he will find each outguard. Only the sentinels may be awake, or close enough to see the road. For some reason, possibly lack of training, sentinels sometimes per-

mit unrecognized persons to pass by them without challenge.* Any officer who has posted outguards at night, especially when the outguards are small and in dense country, has learned the advantage of first sending them an arbitrary distance from a known starting point. During his inspection he discovers landmarks to guide himself and others to the final position of the outguard, or he may fix the position approximately by pacing.

In the present case, you are expected to do the best you can in the matter of establishing your outguard when you have arrived 500 paces south of the crossroads, and then await the arrival of Captain Rowen.

At night, the distances between parts of a marching column are greatly reduced. You probably observed that, in the statement of the situation, the advance guard point was about 75 yards ahead of the advance party, also that there were connecting files between the point and the advance party in spite of the short distance. When you marched your squad towards the outguard position, you needed a point as security in front, but instead of sending this point 100 or 200 or even 300 yards as you would have done in daytime, you sent it only as far as you could see. If you had sent it farther ahead, you would have been obliged to use connecting files in sight of each other or lose control over the point.

The enemy's fire will have no effect unless the men firing can see their target. If your point encounters a party of Reds in the road, these Reds may, of course, see your point, but they cannot see your squad. You need only a few seconds warning. If there is a large hostile force near by, you will probably hear it before you see it. If it is merely a patrol, you may not hear it before you see it, but in that case, a sudden meeting is no disadvantage to you, since it gives you an opportunity to drive off the patrol instead of giving the patrol an opportunity to escape unobserved and remain in your vicinity. Of course, your squad will march as quietly as possible.

In a former problem we advised outguard commanders

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*During the Philippine Insurrection this mishap befell the writer twice in one month and resulted in a useless search far beyond the outguard position.

to march out to their positions as soon as possible, and we pointed out the fact that much of the information to be given the members of the outguard can best be given at the outguard position. In practice, your judgment must determine what may best be told the men before starting out. For example, in the present case, we prefer to tell the squad, before leaving the crossroads, that the company will be at that particular point during the night, and the battalion will camp at the bridge a half mile to the north. The point to be emphasized is that your departure should not be delayed by a long and unnecessary explanation of what the squad is to do.

In this problem we have used another system of night signalling. Recruits may not be able to whistle the simple bugle signals, but we assume that your men are not recruits.

The call is

Forward march.

The answer or acknowledgement is

Attention to orders.

Although there are but few short bugle signals, the number is large enough to permit many combinations.

SITUATION II

You arrived 500 paces (about 440 yards, taking the average soldier's pace) and found yourself 100 yards south of the farmhouse. We assume that you watched the house and barn closely and passed them quietly. The map is not detailed enough to indicate how the outguard and its sentinel post should be posted, or to bring out anything new relative to the posting of the outguard.

When Captain Rowen arrived, he moved the outguard back to the point, 300 yards south of the crossroads, where the rail fence on the west side meets the road. The house and barn were investigated and were found to be temporarily deserted. The sentinels were posted at the point indicated by Captain Rowen, and the remainder of the outguard was placed in the cornfield 20 yards north. The captain's final instructions were:

At daylight, move to the best observation point within 300 yards to the south.

Where do you post the outguard at daylight?

(Note: The corn is little less than knee high).

CORPORAL ADAM'S SOLUTION

I place the sentinel near the southwest corner of the farmyard (the fence corner), about 400 yards south of Texas crossroads, and place the remainder of the squad a short distance north of the sentinel and along the west fence of the farmyard, the exact spot depending upon the cover that can be found or provided.

DISCUSSION

First, we may explain why Captain Rowen moved the outguard back from the position where it first halted. Within certain limits, the *distance* between a support and one of its outguards is not important. The important thing is the ability to observe and, in the case of a picket that must resist, a suitable defensive position. The sentinels posted near the first position of your outguard were on the down slope of a ridge and had a shallow ravine or draw in their front. The range of their vision was limited to about 30 yards in every direction, except to the north and northwest, in which directions the skyline enabled them to see the crest of the ridge on which the farmhouse stands. But the enemy is supposed to be to the south. If other conditions permit, a skyline within 100 yards of a sentinel's *front* is an advantage. The ridge 450 yards south of the farmhouse is too far away to form a skyline at night. Captain Rowen's choice lay between the position finally selected, and a position on the road about 700 yards south of Texas crossroads. Either position might be satisfactory.

At daylight, your sentinel post must be moved forward and, naturally, the whole squad would also go forward in order to be reasonably near the sentinel post. From the new day position, the sentinels can see hill 707 and the roads east and west of that hill. Captain Rowen will undoubtedly inspect the outguard again as soon after daylight as pos-

sible, and may decide to send a cossack post or sentry squad as far as hill 707, unless the march is resumed early in the day.

At night, an outguard sent out to watch a road must be on, or very near, that road. After daylight, however, the outguard need not remain near the road, but it must be able to see the road. Frequently a position will be found some distance away from the road, from which position not only the road, but other parts of the terrain, can be observed In the present case, however, the controlling reason for leaving the road is to get away from the house and, at the same time, obtain a good observation position.

In the Sixth and Seventh Problems the outguards moved forward at dark and back at daylight. In the present problem we find that the outguard should move forward at daylight and back at night. If you study a hundred situations, all different, you might conclude that in the majority of cases the night and day positions of an outguard are the same; that is, no change is made. Even so, it would be just as wrong to say that the rule is to make no change, as to say that the rule is to move forward, or the rule is to move back. The only correct thing to say is, "The facts concerning the enemy and our own troops are so and so; the facts concerning the terrain are so and so. Now, what is the sensible thing to do?" Rules are sometimes poor guides.

Perhaps it is unfortunate that we have used as examples, in previous problems, two strong outguards, both of which moved forward at night. (Sixth and Seventh Problems.) We may make the matter clearer by saying that a picket changes its position at dark, and again at daylight, when the change makes it easier for the picket to *resist.* Sentinel posts, and therefore cosssack posts and sentry squads, which, ordinarily, are merely the combined reliefs of particular sentinel posts, placed under a commander and near the sentinel post for convenience, change their positions at night, and again at daylight, only when the change makes it easier for the sentinels to *observe.* If, in daytime, the men of a sentinel post are posted and relived directly from a picket, but the post of the sentinels is poor for observation

at night, while the position of the picket itself is satisfactory, the latter would not change its position, but would change the sentinel post, making it a cossack post or sentry squad if the new position is far from the picket, as it generally would be at night.

Combat Instructions

(See note following preface, page vi)

Since this book is designed to serve in part as a guide to company commanders, this concluding chapter is presented in the belief that it describes a useful method of combat instruction.

From recruit drill, drill in close order, and drill in the mechanism of extended order (I. D. R. 6b), company commanders frequently pass immediately to complete field exercises (I. D. R. 6c). The writer has found that by employing an intermediate step better results are obtained.

A field exercise (I. D. R. 6c) is based on an assumed situation, to which the appropriate tactical principles and formations are applied. It may be an advance guard, rear guard, outpost, attack, defense, convoy, etc. A combat exercise (I. D. R. 6d) is also a field exercise, but it is one which involves attack or defense only.

Our limitations as to observation and memory are such that, in a complete, uninterrupted combat exercise, many important things escape correction and proper elucidation. Frequently the result is a lack of the true discipline, understanding, particularity, and care which form the foundation for infantry leading and control in battle.

The proper combat instruction of the company, and particularly of lieutenants and noncommissioned officers, includes an understanding of the meaning and purpose of the forms which make up the prescribed drill movements in extended order and firings. This is best accomplished by conceiving *separate phases* of combat and designing exercises to illustrate correct leading and conduct thereunder.

The examples which follow will illustrate the application of forms to separate phases of combat, under conditions which permit intelligent, detailed criticism and solid instruction. A study of these examples will probably lead the reader to suspect that a company commander must be a lecturer in a small way. If so, the reader has caught our idea exactly. The training of lieutenants and noncommissioned officers is half of the game; and it cannot be suc-

cessful and complete without intelligent and pertinent explanation of concrete examples.

Battalion, regimental, and brigade commanders, and inspectors, by devising and using exercises of this kind can more quickly and accurately judge the tactical training and skill of a company than by any other means known to the writer. Drill is a necessary part of an inspection, and an excellent drill is *prima facie* evidence of efficiency, but it is not conclusive as to field efficiency. A complete field exercise, on the other hand, generally moves too rapidly for minute inspection.

FIRST EXAMPLE

The company is in camp near Plainview. The captain has found it necessary to clear up the situation as to the purpose and proper leading of platoon columns. The company is brought to the farmyard 300 yards northwest of Plainview, and the captain announces to the assembled officers and noncommissioned officers:

The enemy is intrenched just south of the road that you see yonder through the trees, and about 2,000 yards north-northwest of here (the 609—626—632—587 road). He has artillery. Our brigade attacks from this ridge (indicating the Plainview—712 ridge). Another brigade is on our right. We have artillery. The creek in front is easily fordable. There are troops on the right and left of our battalion. Face as I face (the captain faces roadfork 626). At 2,000 yards, a house, barn, and small orchard. The house is at a roadfork. Take the house as reference point. Nine o'clock. Four fingers. Another roadfork. Our battalion objective is the enemy's trench between the two roadforks mentioned. Take the house as reference point again. Seven-thirty o'clock. Two fingers. The roof of a house (800 yards south of roadfork 626). Across the road from the roof and to the right of it, a patch of woods. The battalion will move first to that patch of woods without firing. This company is on the right and is base company. Company B on our left. Companies C and D in support. Any questions? Posts.

He then forms the company in skirmish line, under cover on the south slope of the ridge, and commands:

Platoon columns, march.

When about a third way from the house to the creek, he halts the company, assembles the platoon leaders and guides, and with them examines the location of each platoon. From time to time he makes criticisms and suggestions which we

shall sum up and condense later. The company then continues the advance for another hundred yards, and the location of the platoon columns is examined as before. A final halt and examination is made just south of the creek.

It would be impossible to reproduce here the remarks of the captain exactly as made by him. The sum and substance of them is as follows:

The company is somewhat restricted in its advance. We cannot move very much to the right or left without running foul of other troops. The whole brigade has to move forward in a rough line, each unit using the formation best suited to escape artillery fire. The best formation for each depends upon the ground that it must cover. Our battalion can use platoon columns because of the numerous trees on this sloping ground. If each platoon leader will remember that the enemy's artillery has to see its target in order to fire upon it effectively, he will realize that all he had to do in order to escape artillery fire is to keep out of sight. On this down-slope a platoon leader should not have much trouble marching his platoon so that the foliage of one tree after another serves as a screen. Behind the enemy's front line, and perhaps in the line, there are buildings or high points at which the artillery will station observing parties, connected with the guns by telephone. If these observing parties see you, you may draw fire. The thing to do, then, is to keep a sharp lookout and see to it that the platoon is exposed as little as possible to a view from any of the buildings or high points that might be used by the enemy as artillery observation stations. A platoon does not have to march in a straight line. The platoons do not have to keep abreast of each other. They should zig-zag whenever it is necessary to get the cover of the tree foliage. It would not be seriously objectionable if one platoon marched behind another for a short distance, if it cannot otherwise get cover.

The foregoing remarks contain nothing but what is important for the platoon leaders and guides to know. The captain avoids a discussion of matters that concern only the higher commanders.

When the company reaches the creek, the captain sends it back to the beginning point, under the first lieutenant, to repeat the advance. This time, however, the original platoon guides are assigned as platoon leaders while the captain and the original platoon leaders, except the first lieutenant, go to the patch of woods 800 yards south of 626. From this high ground they observe the advance of the company with a view to further criticism and suggestion. Meantime, each platoon guide has an opportunity for practice in seeking cover for an advancing platoon.

If time permits, and further instruction is desirable,

both the starting point and the battalion objective can be changed slightly and the exercise repeated.

SECOND EXAMPLE

This is a continuation of the First Example.

The captain marches the company to the bend in the road 400 yards east of Hershey Mill; halts it facing north, and announces:

The firing line of the battalion (our company and Company B) reached this creek in platoon columns, crossed to the north bank, and halted under cover of the bank, in skirmish line. You notice that the open country, between this point and the patch of woods that we are headed for, is easily seen from various points on the big hill in front of us (Chestnut Hill). The enemy's artillery may have observation parties at one or more of those points. If we advance by platoon columns, or in ordinary skirmish line, we shall probably draw artillery fire. You notice, however, that the enemy's infantry in the trenches probably will not see us until we occupy the north edge of that patch of woods. The battalion commander has ordered the firing line to advance in thin lines to the patch of woods. When the company flag is up you will assume that you are under artillery fire; otherwise, you are not under fire. As skirmishers, guide right, march.

The skirmish line is then moved back to its covered position under the north bank of the Conewago, the right of the company at the road bend. The captain then orders:

The company will advance to the woods by half platoons from the right; the half-platoons deploy with 10 pace intervals. Mr. Allen (the first lieutenant), start out with the First and Second Squads.

The half platoons are sent in successive lines about 150 yards apart. The captain goes forward with the fourth line. After a brief examination of the assumed enemy's line, he announces to the platoons that have already arrived:

Target: Trench along the crest. First and Second Platoons, from the right end of the orchard, then three o'clock to the road. Overlap. Third and Fourth Platoons, from the right end of the orchard to the left end. Overlap. What is the range?

The target designation is repeated to those platoon leaders who arrive later When the range finders have reported, the captain orders:

Range, seven-fifty. Leave rifles in place, sighted on the target. Platoon leaders and guides, inspect sight-setting and distribution.

We shall assume that the following incidents were observed and noted by the captain:

1. Lt. Allen marched the First and Second Squads directly forward, and did not form thin line until he reached the road. The second line was forewarned to deploy under cover of the creek bank before advancing. Thereafter, each line deployed under cover as soon as the preceding line advanced.

2. After crossing the road, the first line alternated between double and quick time, although the company flag was down throughout the exercise. The second line did the same. The other lines were then forewarned not to do so unless the company flag was up, indicating effective artillery fire.

3. Each of the lines had a tendency towards closing on its center, particularly the fifth line, which approached the woods with less than 5 pace intervals between men.

4. The first, second, and third lines, upon arriving in the woods, properly reduced the intervals between men, but when the captain arrived he found these six squads lying down in the north edge of the woods, exposed to the enemy's view. He left two men as lookouts and ordered the line back under cover. Later, he gave the orders relative to target an range, quoted above.

5. In other respects the exercise was satisfactory.

While the company rests, the captain assembles the officers and noncommissioned officers and says:

This is another example illustrating how a firing line may advance, without firing, to a position as near as possible to the enemy's trench, from which position the firing line makes its preparations to start a vigorous fire and an energetic advance when the proper time comes. Platoon leaders report accurate sight-setting and correct aiming for distribution. Some other things were not so good.

The first line should have deployed as skirmishers, at 10 pace intervals and with the right skirmisher as base (i. e., guide right), before the line left the cover afforded by the creek bank. But that is too evident to require further comment.

At no time was the company flag up to indicate that you were under artillery fire. If you are not under fire, there is no necessity for double timing. Quick time is good enough, and saves the men unnecessary fatigue. If special conditions require a faster gait, even though we are not under fire, the major will tell me beforehand and I will tell you. The advance by rushes in the fire attack is an

entirely different thing, though even in rushes I have seen a combination of long distance and good cover that made it wise to reduce the gait temporarily.

You must correct the inclination of the men to close towards the center and thus "bunch up" the line. It was particularly bad in the fifth line. Get it clearly in your mind what thin lines are for. When we came down that hill in platoon columns, we tried to avoid casualties by preventing the enemy from seeing us. But from the creek to these woods we could not do it that way. We had to cover the ground so thinly with men that, although the men were visible to the enemy, the target was too poor to shoot at. The enemy is not going to fire unless he can get results that are worth as much as the ammunition used. If we keep our formation thin enough, he will let us alone and save his ammunition for a more critical time and a better target, unless he has less sense than he ought to have, or more ammunition than he needs. Probably no one ever had so little sense or so much ammunition. But I am talking now about artillery fire. Thin lines are not good against infantry fire, after we get so close to the enemy that our men can easily be aimed at individually.

The best that a 3-inch shrapnel can do is to spatter an oval-shaped piece of ground about 20 yards at its widest dimension and about 150 yards at its longest. The shrapnel has, roughly, 250 bullets. Even if you are somewhere in the exact area covered by a shrapnel burst, there is only one chance in twelve that you will be hit. At that rate, we can make our lines so thin that it would take all the ammunition of an entire battalion of 3-inch guns to put 20% of our one company out of commission. But even this percentage of casualties would not result unless we exposed ourselves for the length of time necessary to fire that much ammunition. It will probably never be necessary to expose the company that long. So remember that, if your line is thin, you will probably escape artillery fire; but, if your men "bunch up," they simply invite the enemy to fire. The enemy's best play is to sweep the line on which our successive lines halt and reform. But here again we outplay him by halting and reforming where shrapnel can not reach us. These woods give us good cover against shrapnel. A ditch, or dike, or stone wall, or a very steep reverse slope would do just as well.

Now, just a word about unnecessary exposure. I found the first three lines in the north edge of these woods, visible to the enemy. Remember that artillery observers have good stations and powerful field glasses. Take it as a fixed rule that when you are in a firing position your men must be as completely covered or hidden as possible *until* you want them to creep forward to locate the target or other things that you may be describing, or to fire, or to advance. If you have completed your talk, and do not intend to fire or advance immediately, or if you cease firing for a while, simply caution, "cover," and see that the men slide back again and take cover.

I hear that, in some companies last summer, the first thin line, on reaching a position like this and in a situation like this, would generally open fire simply because the enemy was in sight just where he was expected to be. That, of course, is all wrong. Sergeant Holmes, when may the first line, or the first several lines, open fire on their own initiative? Correct! In self-defense, or to drive back small advanced detachments or patrols. Any question?

We shall assume that the second lieutenant asks whether the advance by half platoons is better than by lines consisting of one man from each squad, as prescribed in Infantry Drill Regulations (218). The captain replies:

It amounts to the same thing as far as concerns vulnerability and the likelihood of being subjected to artillery fire. Drill Regulations do not insist on any prescribed form. Paragraph 218 is merely a suggestion. The method we used is better in our particular case for the following reasons: The ground between the creek and the cover afforded by the low, wooded ridge where we now are, is so open and devoid of cover that there is no intermediate line on which the company can halt and re-form its skirmish line. In other words, we cannot very well make the advance in two or more "hitches." That being the case, we advance in a single hitch. But the distance is great, and it finally brings us dangerously close to the enemy. In fact, if anyone insists that we have gone too far in one "hitch," I can only answer that he may be right. In the last analysis, our safety in this particular case would depend on the kind of progress the other battalions are making on our right and left, and upon how we co-ordinate our progress with theirs.

In any event, from the standpoint of leadership and control, it will be better if we arrange it so that each line consists of complete units, if such an arrangement is possible. What makes it possible in our case? It is made possible by reason of the fact that the fraction selected (a half platoon) can deploy its thin line *under cover* of the bank of the creek before advancing, and can close to normal intervals *under cover* when it arrives here. In that way we gradually build up our strength in these woods with the least disorganization. First, we have a platoon leader and two squads; less than two minutes later we have a complete platoon; then a platoon and a half; then two platoons, and so on. Although the same in numbers, one complete platoon is better and stronger than a line consisting of two men from each of 16 squads. But there are times we must use thin lines consisting of one or two men of each squad, or even single men from alternate squads. Assume that the distance to be covered is 600 or 800 yards, and that the ground is covered with weeds and brush which will conceal the men if they select their positions skillfully and hug the ground closely. Such cover may afford protection against accurate artillery fire. We might then find it best to advance with a man from each squad and in two or more "hitches"; that is, we may send the first line forward, say 200 yards, where it will halt. When all, or nearly all, of the lines have arrived in the new position, we would send the first line forward, say, another 200 yards. Naturally, in such a case we could not use half platoons in thin lines; there would be too much deploying and closing in by the flank in plain view of the enemy's artillery observation stations. And if we attempted to make the whole distance in a single "hitch", the first line or two may eventually be so close to the enemy that he might seize the opportunity to smash us with a counter-attack at a time when the company is badly scattered and beyond real control.

"In a few minutes we shall return to the road bend from which we started. Then the company will begin an attack from the same starting point and with the same objective, but with all other conditions different from what they are in the present situation. With the contrast fresh in your mind, I shall try to explain some things that you, particularly the platoon leaders and guides, should know."

(See Third Example.)

THIRD EXAMPLE

This is a variation of the Second Example.

The captain sends two men to post themselves, about 60 yards apart and kneeling, in the best firing position obtainable just south of the orchard and barn near roadfork 626. He then leads the company to the road bend 400 yards east of Hershey Mill and announces:

"This is an entirely different situation. The enemy is in position more than a mile northeast of here, near the town of Heidlersburg. Our regiment has reached this point and is about to advance to that high ground to the north (hill 586) from which place it will attack towards the east. It will then be on the left flank of our attack, with other regiments on its right. Our company, however, has been ordered out as a covering detachment (or combat patrol) on the left and will go to an east and west road a little less than a mile north of that mill (Hershey Mill). Our patrols report that there is a hostile detachment posted near a roadfork less than a mile north of the mill, where the road from the mill meets the east and west road. The company will drive off any hostile detachments encountered."

The company marches off with the First Platoon as advance guard. The advance guard commander is told that, as soon as he comes in sight of the two men posted south of the roadfork (626), he will assume that they outline the enemy and that he is fired upon by 20 or 30 rifles; and he will act accordingly, one man in each squad using blank ammunition. The route is by way of the road as far as the wooded ridge 700 yards north of Hershey Mill, and thereafter in the fields west of, and close to, the road. The main body follows at 400 yards.

We assume that, after the advance guard has disappeared in the draw midway between Hershey Mill and roadfork 626 (near the farmhouse), it opens fire. The captain then leads the main body off the road and to the left, to the trees about 100 yards southwest of the farmhouse, and orders:

Second and Third Platoons, as skirmishers, two paces, guide right, march. March direction: the big barn (pointing towards roadfork 626). Fourth Platoon in support; halt in the woods.

During the deployment, the captain calls a corporal of the Fourth Platoon and says to him:

Take three men of your squad in that direction (pointing northwest) about a half mile to the high ground you see there, as a combat patrol on our left flank.

Our map does not give the detailed information of the ground necessary to a complete statement of the captain's orders. However, we shall make the following assumptions: The support is ordered to follow the left flank; the distance depending upon cover. The two deployed platoons advance to the wire fence that runs west from the road. Here the advance guard is overtaken. The advance continues another 50 yards. Then the necessary orders are given and the whole line opens fire. A moment later the captain signals cease firing. The combat patrol is recalled; the company is assembled; arms are stacked and the men fall out. The captain then assembles the officers and noncommissioned officers, and says:

Any one of you men may be called upon any day to command a company, or half company, or one platoon, in a detached and independent attack like the one we have just started. I want you to understand why this attack is so radically different from the previous one (Third Example), although our beginning point and our objective, or enemy's position, are exactly the same in both cases.

We did not go to the wooded ridge in thin lines for three reasons: First, there were no other troops on our right or left and we were free to consider only our own convenience, speed and safety. Second, there was no danger or probability of artillery fire. Third, thin lines take time and we had a chance to save time.

We might have marched in column of squads and with an advance guard straight across fields to that wooded ridge near the farmhouse, but a march by the road is easier and quicker. If we had had reason to fear artillery fire, we still would have marched in column and with an advance guard, but our route, in that case, would probably have been by way of the creek bed to those woods (southwest of the farmhouse) in order to escape being seen by artillery observation parties. We could not take that route in the first attack because it would have broken up the deployment of the brigade at a point too close to the enemy.

In the last attack we used an advance guard to guard against surprise and to drive off any small patrols that might be met between us and our objective. In the first attack the whole brigade was deployed and ready for surprise parties. Besides, reconnaissance to the front was in the hands of higher commanders.

In the last attack we sent out a combat patrol of 4 men on our left flank. If you look at the ground you can readily see that we would need warning of the approach of enemy infantry or cavalry from that direction. Our right flank was safe enough, but we should keep in signal communication with our regiment.

In the last attack we kept one platoon out as support. The Drill Regulations say that a company acting alone, as we were, is handled the same as a battalion, allowance being made for the difference in strength. The battalion usually deploys whole companies in the firing line. But the whole of our company could not be deployed until we knew that there was no immediate danger of a surprise party on our left flank, or until the fight became so stubborn that we needed the Fourth Platoon in the firing line in order to win and had to take a chance on other things. I can imagine a situation

where a platoon acting alone should hold out a squad or two until the situation became clearer, particularly on the defensive; but ordinarily a platoon acting alone needs its whole firing strength early in the game and it must depend on small combat patrols to guard it against surprise. The smaller the force, the more easily it can withdraw or change its front.

In the first attack we used half pace intervals, or about one man per yard of front. In the second attack we use 2 pace intervals, or about one man to a little more than two yards of front. We need as many rifles as possible against the enemy. If the enemy's front is 5,000 yards long we need 5,000 rifles against his front and others against his flanks. But a platoon, or company, or even a battalion, if attacking alone, may deploy with only a half rifle to the yard and still have all its rifles effectively in action. So, if you see any advantage in a thinner line when acting alone with a small force, do not hesitate to use it, provided you do not lose control, and provided all rifles get on the target. In our last attack I wanted the right of the company near the road, but I also wanted the left platoon to get forward under cover of that patch of woods (400 yards northwest of the farmhouse). We deployed three platoons on a front of about 225 yards. I can imagine a case where I would deploy three platoons on a front of 325 yards, but I would first make sure that I could easily signal the platoon leaders, and then I would place a 50-yard interval between the platoons, the platoons deploying with not more than 2-pace intervals between men in order to preserve the control of platoon leaders. But remember this: When you fight a real fight with thin lines you are playing with fire. A counter-attack may put you out of business. Speaking offhand, there are practically only three cases where you may attack on a broad front with a small force: First, a fake attack that you do not intend to press home. Second, an attack against an enemy greatly inferior in strength and whom you hope to drive out quickly and cheaply by threatening to overlap him. Third, fighting against poor troops.

In the first attack it was decided beforehand that we would probably begin the fire fight when we reached the wooded ridge east of the farmhouse. That was on account of the fact that we were only a small part of a long line. But in the second attack, where we had no other troops to coöperate with, we pushed ahead until we began to feel seriously the effect of the enemy's fire, and then we halted and opened fire. We could not tell in advance where the halting place would be, but we wanted it to be as close as possible to the enemy.

Are there any questions?

FOURTH EXAMPLE

The use of cover in attack is largely a matter of the individual judgment of the men. I. D. R. 152-155 refers more especially to single men or patrols. I. D. R. 156 points out the modifications imposed on the men of a firing line. In spite of the added difficulties of a firing line in the matter of effecting concealment, it will surprise many to learn how well trained men can conceal and therefore partially protect, themselves behind objects which to the inexperienced seem wholly inadequate.

The captain takes the company to the small orchard midway between Hershey Mill and crossroads 616; thence west 400 yards to the fence corner. Between this point and hill 707 the fields lie fallow, with many low weeds. The weeds are scattered irregularly, from four to eight feet apart. None is over knee high. Some are thin in foliage; others are quite dense. The ground and vegetation are such as one often sees in pastures, rank meadows, or fallow fields.

The captain announces:

First, we shall see how much cover a man needs to prevent the enemy from seeing him; or, to put it another way, I am going to demonstrate how *little* cover a man really needs in order to conceal himself.

The captain deploys a squad with 2 pace intervals facing hill 707, and causes the men of the squad to lie down in firing positions behind the lowest and thinnest weeds which, in his opinion, will screen them from view at a distance of 200 yards or more. He then explains to the company:

Standing here, and without any experience in the matter, you would suppose that these weeds give these men no protection whatever. In order that you may learn the value of slight cover, and learn how to use it, I am going to show you that while these men are not protected by anything that amounts to a bullet-stop, they are protected against aimed fire. Protection against aimed fire may reduce our casualties to one-fifth or even one-tenth of what they otherwise would be.

Leaving the squad in position, with instructions to kneel at the signal "one whistle blast," and lie down under cover at the signal "two whistle blasts," the captain marches the company 200 yards towards hill 707, faces it towards the deployed squad and asks:

Can anyone see the squad?

We shall assume that the squad has been well placed and is concealed. The captain then signals the squad to kneel and says to the company:

Each man select a man of the squad to watch. When he lies down again, pick out the point that you would aim at if you were firing on him. See how long you can keep your eyes on that point without confusion or uncertainty.

He then signals the squad to lie down and about a half minute later he commands:

Eyes right. Front. Pick up your aiming point again. Those who are sure they have found it hold up their right hands.

Having disposed of this matter, he adds:

The effect of the enemy's fire upon you depends mostly on his ability to use his target as his aiming point. Each of you may be considered a target; but if you can not be seen, you can not be an aiming point, although you are still the real target that the enemy is trying to hit. You can not help being a target; the mere fact that you are a soldier makes you a target; but you can frequently avoid being an aiming point and if you succeed in doing that, you are no longer a good target for the enemy. Now if your enemy sees you dissappear behind a bush or weed, you are still the target, but the bush or weed becomes the aiming point. If there are many bushes around you the enemy soon loses sight of the particular bush behind which you disappeared. You have seen what a trifling object can conceal a man at even so short a distance as 200 yards. You have also seen how easy it is to lose your aiming point. Remember, then, if you do not give the enemy a good aiming point, your chance of being in good health at the end of the fight is improved from 500 to 1,000 per cent. Ordinarily, the smaller the forces engaged, the greater is the importance of individual concealment, because the excitement and confusion is less and we aim at individuals instead of areas. But concealment is always important.

The captain then sends the first lieutenant with half of the company back to the position of the deployed squad, with instructions to deploy the half company with 2 pace intervals and attack hill 707, advancing by rushes; and with instructions to platoon leaders and guides to inspect and correct the positions of their men at each halt. The captain takes the other half of the company to the wire fence on hill 707 to observe the attack and the use of cover. When the first lieutenant has advanced 200 or 300 yards the two halves of the company change places the captain remaining on hill 707. He comments freely on the faulty positions or movements observed with a view to thorough instruction in the details of using cover while advancing in attack. We may assume some of his comments to be as follows:

Look sharp and you will see that a part of the firing line is getting ready to rush. Two or three men are on their knees and elbows with their backs raised and no longer concealed. They should lie close to the ground when the warning for a rush is given. It may be 30 seconds or even more before the platoon leader is sure that all men have heard or seen the warning and are ready to jump when he shouts, "follow me." We must not give the enemy a better aiming point during that preparation for a rush, nor give him warning of the rush.

Notice those men with their rifles vertical; the butt probably resting on the ground. They think that makes it easier to jump when the rush is ordered. Maybe it does, but it is wrong.

Some of those men would conceal themselves better by aiming through the weeds or bushes instead of along the right edge. When you use a rock of tree for cover you are obliged to aim along the right side of the tree or rock, but frequently a bush or clump of weeds will be so wide that you can poke your rifle somewhere between the center and right edge and thus get complete concealment.

Some men are shifting about too much, long after the halt. That gives the enemy a chance to pick up his aiming point again. The men should do all of the necessary shifting just after dropping behind cover. They must be able to fire on the enemy, but they should get good firing positions promptly, and after they have them they should lie still.

FIFTH EXAMPLE

The company is marched to the vicinity of hill 707. The captain says to the company:

In bayonet charge against the enemy's position the company is bound to be mixed up and disorganized. Men of several companies may be mixed together. Your squad leader or platoon leader or company commander may be out of action or lost to view in the mix-up. When we reach the enemy's position the success of the charge depends mostly on every man knowing just what he ought to do. The proper thing to do depends on the situation at the moment. The confusion will probably be so great that your leaders will not be able to tell you. In other words, we must count on temporary loss of control and we must make up for it by teaching you a few common-sense rules to guide you. I have seen companies, at the end of a charge in a combat exercise, simply unfix bayonets and assemble, as though the fight were over. As a matter of fact, a very critical stage is reached the moment we are in the enemy's position and we have to see the thing through and do it right. We shall practice charging several times and change the situations each time.

A squad, to outline the enemy, is deployed with 15 pace intervals along the wire fence that crosses hill 707. The squad is instructed to remain at the fence and meet the charge. The company is deployed about 100 yards to the northeast and facing the fence. The men are told that the company in attacking has reached this point. The line opens fire.

A moment later, "fix bayonets" is signalled, followed by the necessary commands and signals for the charge. The outlined enemy meets the charge. The captain's comments before and after the charge may be summarized as follows:

The signal "fix bayonets" seems to bring the firing to a complete stop for a half minute or less. That does not matter. It would not happen in real battle because in the noise and excitement it would

be probably two minutes before all the men of a battalion firing line caught and understood the signal. We need not bother to drill a system of fixing bayonets.

Platoon guides must ride the laggards hard and see that the charging line is as compact and stiff as possible.

Your enemy stayed in his position to receive the charge. He will not do so every time, but when he does, you must beat him by better work with the bayonet or clubbed rifle, or probably fire, and by better teamwork. To beat him by better teamwork you should pair off with the man nearest you and the two of you should go after one man at a time. If you can not find a man to pair with, join the nearest pair and the the three of you go after one man at a time. Don't fight alone if you can avoid it. You can not arrange your pair beforehand, because your partner may not be near you when you need him. At the last moment a man from another company may be your nearest neighbor.

After a short rest the charge is repeated but the men who outline the enemy instead of meeting the charge run back according to instructions when the charging line is about 50 yards off. The captain's comments may be summarized as follows:

When the enemy retreats across open country, it is foolish to chase after him; at least until your officers get a chance to restore order and size up the situation. The enemy is fresher than you are. He will outrun you. Go forward to his trench if you can, and a little beyond it if necessary for fair firing position, and then chase him with bullets. As long as he is in sight and in range, fire rapidly but accurately and demoralize him as completely as possible. Keep a sharp lookout for orders or signals from the nearest leaders, but remember that the confusion and disorder may be very great. It may be a minute of two before some planned action can be ordered and we want every man to know that during that short time a hot fire will do the most good.

The company then faces northwest and charges an outlined enemy posted in the edge of the woods north of 707. The enemy withdraws when the charge begins and is too deep in the woods to be seen. The captain shows that the proper action is to press forward in the woods with as good a line as is consistent with rapid progress unless or until other action is ordered.

A fourth charge may be made in which, after the capture of a first line trench, one platoon, previously designated, occupies the captured trench and hastily prepares itself and the trench for defense against counter-attack, while the other platoons push forward to charge a second line trench.

Other charges may be made, illustrating the numerous situations that may confront charging infantry. Most of these charges, particularly where they involve the organization of local pursuit, or counter-attack by the enemy, would more properly be battalion or regimental exercises.